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FIFTY-FIRST YEAR

# PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

ESTABLISHED IN 1872

Vol. LXXV. No. 25 NEW YORK AND CHICAGO, DECEMBER 21, 1922 { Per annum, $4.00 / Single Copy, 10 Cents

SCANDINAVIAN-AMERICAN TRADING COMPANY
50 EAST 42 ST., NEW YORK CITY

We are now SOLE selling agents in the U. S. A. for
UDDEHOLMS Aktiebolag
KRAFT — Bleached, easy bleaching and strong unbleached
SULPHITE — Bleached and easy bleaching
Total annual production 45,000 tons.

WOOD PULP

SEE PAGE 19

Diamond-F
PROTECTIVE PAPERS
Glassine — Vegetable Parchment
Parchmoid — Greaseproof
Diamond Fibre Receptacles of all kinds
Diamond State Fibre Company
BRIDGEPORT, PENNSYLVANIA (near Philadelphia)
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Kraft Pulp and Easy Bleaching Sulphite

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NEW YORK CITY
ASBESTINE PULP
FILLER
90% Retention
857. U. S. PATENT OFFICE

Entered as Second-Class Matter June 20, 1879, at the New York Post Office, Under Act of Congress, March 3, 1879
Published Every Thursday by the Lockwood Trade Journal Co., Inc., New York.

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PULP AND PAPER
OF
EVERY DESCRIPTION
HUDSON TRADING COMPANY
300 Madison Avenue
NEW YORK
ESTABLISHED 1884
CABLE ADDRESS: "HUDTRACO," NEW YORK

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*High Grade Printing Paper*
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FITCHBURG, MASS.
MANUFACTURERS OF
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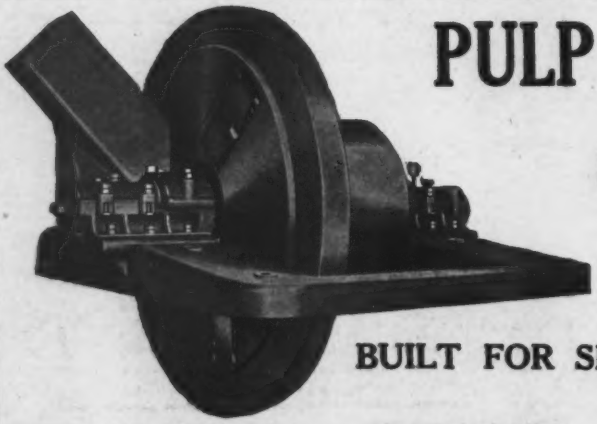
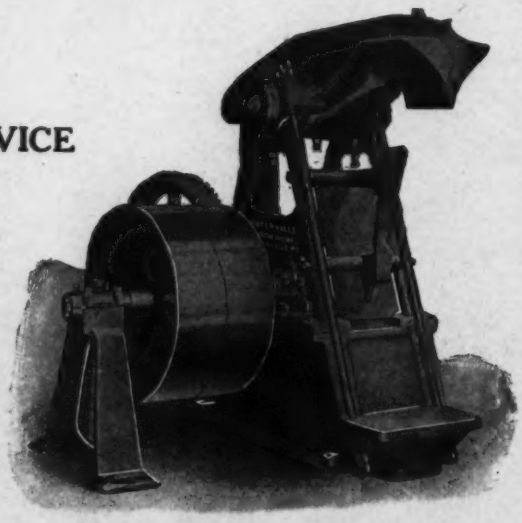
English Weave in Two, Three, Four, Five and Six Ply
60 Inches to 176 Inches in Width
Fine Faced Felts for Fine Papers
Absolutely No Felt Marks in Paper
TRIUNE Three Ply Felts for Coarse Papers


PULP WOOD CHIPPERS
and SPLITTERS
BUILT FOR SERVICE

Wood Room Machinery,
for Pulp Mills, of latest type
WATERVILLE IRON WORKS
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## TRANSMISSION MACHINERY

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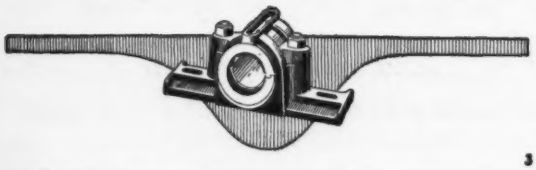
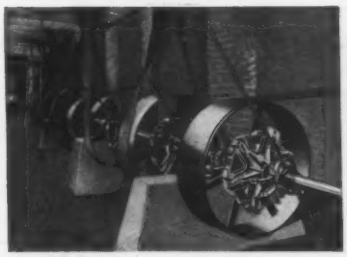
CALDWELL



3

## FRICTION CLUTCHES
### TO MEET THE REQUIREMENTS



No one design of clutch can be adapted to all conditions. Recognizing the various requirements of different classes of work we have designed four styles.

STANDARD CLUTCH, 2, 3, 4 and 6 ARMS
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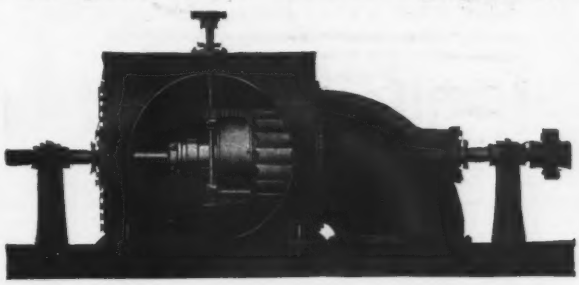
WE MANUFACTURE
### Complete Water Power Equipment



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Head Gates.
Trash Racks.

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BLEACHED and UNBLEACHED

Agents for Kellner Partington Paper Pulp Co., Ltd.
Sarpsborg, Norway; Forshaga, and Edsvalla, Sweden.
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Mills at Tucianský, Sv. Martin

ESTABLISHED 1881 INCORPORATED 1921

IMPORT EXPORT

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JUTE STOCK
ROPE

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TRADE JENKINS MARK Jenkins Bros

*Choose your pump valves correctly*

Use the guide below in your selection of pump valves.

No. 80. Hard Valve for hot water, pressures up to 250 pounds. Also suitable for pumping oils, acids, and other destructive fluids, and for use in air compressors.
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No. 94. Soft Valve for cold water, pressures to 100 pounds.
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Should there be any doubt as to the kind of valve required, state service in which it is to be used, fluid handled, pressure or head pump it is working against, *and in all cases give Diameter, Thickness, and size of holes.*
Know the genuine by the Jenkins Diamond Mark.

JENKINS BROS.

New York Boston Philadelphia Chicago
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*Factories: Bridgeport, Conn.; Elizabeth, N. J.; Montreal, Can.*

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Made from the SITKA SPRUCE of BRITISH COLUMBIA. Noted for Fibre, Color and strength.

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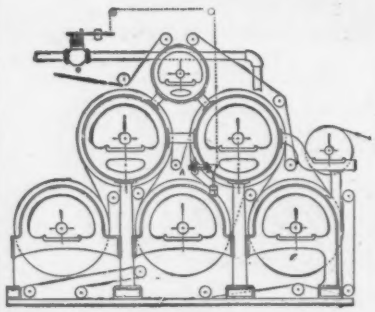

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YOU'LL MAKE NO MISTAKE IN ACCEPTING IT

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will do everything we claim for it and more. The test costs you nothing until you are satisfied. Many mills tried one and now have every machine equipped. Write for list of users and other information.

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# Box Boards
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Control of Production and Our Mill Connections — what they mean to *you*.

Quality guaranteed to be highest grade; deliveries to be prompt—when wanted; service to be thoroughly satisfactory; prices to be reasonable.

*To prove it, write us today for samples and prices.*

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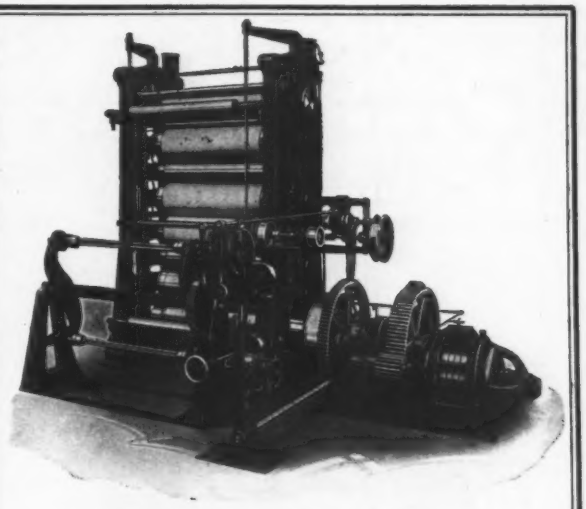
**The C. L. LaBoiteaux Co.**

Cincinnati Cleveland Chicago St Louis New York



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*The Standard for Over 30 Years.*

**NORWOOD ENGINEERING CO.**
Florence, Mass., U. S. A.

*Daily Capacity of* 600 Air-Dry Tons

The extent of our production of

High Grade
BLEACHED
Sulphite Fibre

insures uniform quality, prompt shipments and market prices

BROWN COMPANY
*founded 1852*
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*Mills at Berlin, New Hampshire*

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The
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and the
**Hanna Paper Corporation**

*Daily Capacity, 425 Tons*

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Jute Container Board
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*Manufacturers of*

**TARZAN Fibre Shipping Cases**

*General Sales Offices:*

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## of superior quality

NO matter how intricate or involved the design is, we'll make it and make it right. Every die of carefully selected steel, guaranteed flawless and warranted to give long, satisfactory service. The more difficult your die-cutting problems the more we'll enjoy helping you solve them. Send us a rough sketch or description of what you want and we'll tell you if it is practically possible to produce it.

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Vortex
DRINKING CUP
(Patented)
June 20, 1916, Reissued June 13, 1922; March 26, 1918; April 18, 1922; Other Patents Pending
Canadian and Other Foreign Patents Granted and Pending
"One who manufactures, who uses, or who sells a device that infringes a patent is equally an infringer."
Look for our trade-mark "VORTEX" on all cartons and tubes

## Sales Closing Features

***These superior features speed the sales of Vortex***

Made of clean, strong, pure white paper.
Perfectly sterilized. Meet requirements of Pure Food and other existing laws.
Outside reinforced with pure, fully refined paraffin wax. Strong and rigid.
No wax on inside. Tasteless and odorless.
No glue. Sealed with paraffin under pressure.
Spiral wrapping reinforces cup.
Extra reinforcement at bottom of cups prevents cups sticking together.
Will not absorb moisture or leak when left for an indefinite period.
Conveniently shaped; no holders needed.
Packed in dustproof cardboard tubes; shipped in sealed cartons.
Nested together and dispensed inverted; inside untouched by hands.

*Write for Particulars*

THE VORTEX MFG. CO.
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*Canadian Wm. A. Rogers Ltd., Toronto, Manufacturers and Distributors for Canada*

98

Vortex
Drinking Cups

# TEXAS GULF SULPHUR

**99½ Per Cent. Pure.**

Produced from one of the largest known deposits in the world.

**Texas Gulf Sulphur Company**

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# COLLINS MANUFACTURING COMPANY

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**Manufacturers of**

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*Mill:*— North Wilbraham, Mass.

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ESTABLISHED 1823 SOUTH WINDHAM, CONN.

# THE SMITH & WINCHESTER MFG. CO.

MANUFACTURERS OF

## PAPER BAG MAKING MACHINERY

AS ILLUSTRATED AND DESCRIBED IN BULLETIN NO. 10

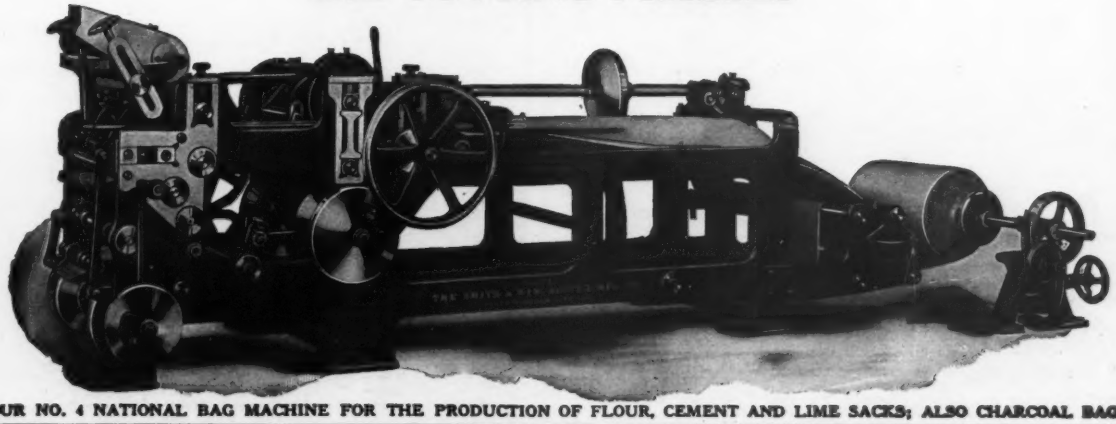
## PAPER MAKING—PAPER CUTTING MACHINERY

FOURDRINIER—CYLINDER—WET MACHINES

JORDAN ENGINES—PUMPS—CALENDERS—REELS—CUTTERS—WINDERS—ROLLS

THE RAINSTORM SHOWER PIPE—COLLAPSIBLE CORES

## DIE CUTTING PRESSES



OUR NO. 4 NATIONAL BAG MACHINE FOR THE PRODUCTION OF FLOUR, CEMENT AND LIME SACKS; ALSO CHARCOAL BAGS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EVERYTHING IN

# PULP & PAPER

## J. F. PATTON CO., INC.

342 Madison Ave.
New York City

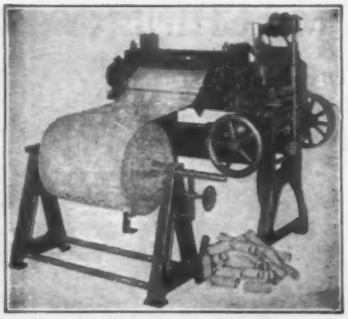
(Cable address - Pulp, N.Y.)

# Dietz Toilet Paper Machinery

AND LATEST IMPROVED PATENTED

## Automatic Tube Machines

For Making Tubes for Toilet Paper Rolls, Paper Towel Rolls



Patented Feb. 22, 1916, May 18, 1920.

Capable of producing 3,600

**Toilet Tubes**

per hour direct from roll.

**Towel Tubes**

are made at rate of 1,800 per hour. Substantially built and fully guaranteed.

Toilet Paper Machines for making Toilet Rolls with or without perforations and machines for making Sanitary Crêpe Paper Towels, Punch Presses for Sheet Toilet Paper, Drop Roll Slitters, Slitting and Rewinding Machines, Side and Center Seam Merchandise Envelope Machines, Photo Mount Beveling Machines, Candy Bag Machines, Punch Presses for Playing Cards, Rotary Card Cutting and Collating Machines, Etc.

## DIETZ MACHINE WORKS

126-128 Fountain Street PHILADELPHIA, PA.

Corner Waterloo St., Below Diamond St., Bet. Front and 2d Sts.

Jeffrey Wire Cable Conveyor and Portable Log Stacker in large storage yard.

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Jeffrey Engineers have co-operated with the men responsible for results in the Pulp and Paper Industry.

This has been productive of successful equipment which has been a deciding factor in obtaining greatest production at lowest cost.

To meet the imperative demands of industry TODAY will mean in many mills, new methods, faster and more dependable material handling equipment, higher efficiency, and Jeffrey experts are ready to help you select the right equipment to meet the emergency.

Jeffrey Equipment for Pulp and Paper Mills includes: Chains for all elevating, conveying and power transmission requirements, Pulp Wood Stackers; various types of Conveyors for handling Logs, Pulp Wood, Pulp Laps, Straw, Bark, and other materials; Coal and Ashes Handling Equipment; Skip Hoists; Coal Crushers; Pulverizers, Shredders; Portable Loaders and Unloaders, Industrial Locomotives, etc.

## The Jeffrey Manufacturing Co.

931-99 North Fourth Street Columbus, Ohio

A Jeffrey Combination Trolley and Storage Battery Locomotive hauling trip of eight loaded cars.

# BED PLATES

**All Styles and Kinds, for Every Make of Beater**

**WELL FINISHED**
**HIGH GRADE**

Order BOLTON QUALITY PLATES next time and see how much longer and better service you can obtain for a low cost.

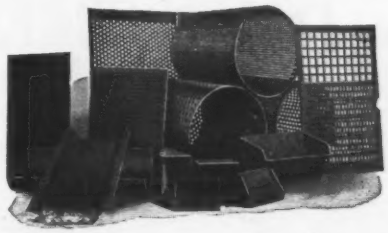
**John W. Bolton & Sons, Inc.**
**Lawrence, Mass.**

**HIGH GRADE FLY BARS, BED PLATES, JORDAN FILLINGS AND KNIVES**

# PERFORATED METAL SCREENS

IN STEEL AND ALLOYED METALS

**For Pulp and Paper Mills**



Elevator Buckets, Conveyor Flights and Troughs, General Sheet and Light Structural Work

**Light and Heavy Steel Plate Construction**

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**New York Office, 30 Church St.**
**Pittsburgh Office, 544 Union Arcade**

# Pure Wool

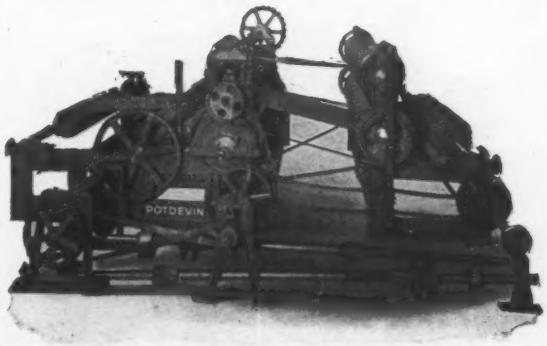
spun and woven by skilled American workmen will always be used in the making of *Appleton Felts* and *Jackets.*

Write for quotations and additional facts on what we mean by *better service* for paper manufacturers.

**Appleton Woolen Mills**
**Appleton, Wisconsin**

**Appleton**
**Felts and Jackets**

# POTDEVIN
## PAPER WAXING




# MACHINERY
## ON DISPLAY THIS WEEK

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**1223 38th Street, Dept. 12 Brooklyn, N. Y.**
**Phone: Berkshire 5906-5907**


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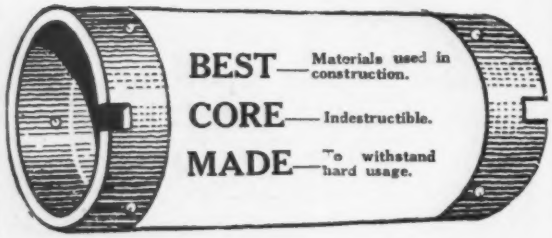
The Use of

# ELIXMAN CORES

protects your rolls and insures their delivery, to your customer, in perfect condition. They eliminate claims for damages.



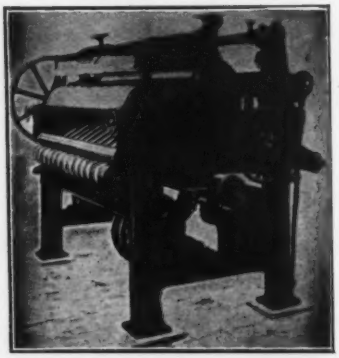

*Your two sources of supply are*

**Canadian Elixman Co.**
HAMILTON, ONTARIO

**Elixman Paper Core Co.**
CORINTH, N. Y.

## THE CLARK-AIKEN CO.

Successors to
H. C. Clark & Son Machine Co.
**PAPER MILL MACHINERY**
LEE, MASS.

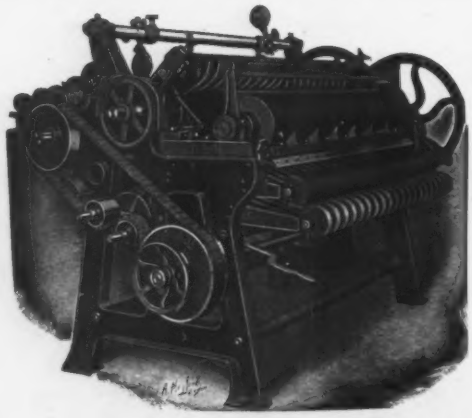


Revolving Paper Cutters—Rag Cutters—Cylinder Paper Machines—Washing and Beating Engines—Chilled Iron and Paper Calenders—Fan and Stuff Pumps—Engine Roll Bars and Bed Plates—

Cylinder Molds—Marshall Drives—Slitters and Rewinders—Reels—Dryers with Improved Packing Boxes—Wet Machines—Gun Metal and Rubber Rolls—Rolls Reground.

## Paper Cutters

**Single, Duplex and Diagonal**



**Cutter Knives Patent Top Slitters**

## HAMBLET MACHINE CO.
LAWRENCE, MASS.

## *Starch*

Paper manufacturers generally recognize the value of starch in the manufacture and coating of paper.

To obtain definite results in any desired direction in the preparation of paper, not merely a difference of grade, but a difference of kind or variety of starch is required.

Our carefully controlled and thoroughly standardized processes enable us to produce exactly the various starches which the paper industry has found economical and efficient.

**Corn Products Refining Company**
17 Battery Place New York

*Starch*

# Right Now—

Is the time to increase your Semi-crepe Toilet sales. Bulk, quality, general appearance and price are the four factors that have made this Fort Howard product so easy to sell and keep sold.

**Fort Howard Paper Co.**
**Green Bay, Wis.**

# PERKINS FANS Have These 7 Points of Superiority:

1. Reversible blades adjusted safely to any angle.
2. Variable capacity without change of speed.
3. Removable babbitt bushings.
4. Ball-bearing end thrust.
5. Positive lubrication.
6. Noiselessness.
7. No obstruction of light while in operation.

*Style HK*

Write for
**OUR FAN CATALOG**

Address Dept. P-12

**B. F. Perkins & Son, Inc.**
HOLYOKE, MASS.

*Manufacturers of Fans—Calender Rolls—Testers—Rag and Stock Cutters*

# Wood Plugs

For paper rolls, made to pattern under shop names in four sizes as follows: CARD, 3"; MANILLA, 2⅝"; NEWS, 2½"; DRUG, 2⅛"; 1¾" in length, having 1" hole, and tumble polished when shipped. You should if possible, adjust your needs to these stock sizes, with prospect of prompt shipping in carlots or less, thereby avoiding serious delays in waiting for something special. Samples cheerfully furnished.

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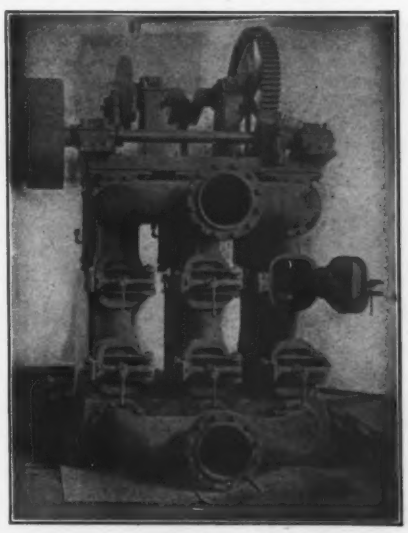
**MOUND CITY, ILL.** Eastern Office: 855 West End Ave., New York, N.Y.

# The Black-Clawson Co.

**Hamilton, Ohio**

**Builders of All Types of Paper Making Machines and Machinery**



**for PAPER and PULP MILLS**

***Successful machines in operation are proof our work is built right.***

HANS LAGERLOEF, Pres. and Treas.
ORVAR HYLIN, Vice-President
MAURICE LONDON, Secretary

Telephone Murray Hill 4246 4247

TRADE MARK

Lagerloef Trading Company, Inc.

WOOD PULP

52 VANDERBILT AVENUE, NEW YORK, N. Y.

Sole Agents in U. S. A., Canada, Mexico and Cuba for

FINNISH CELLULOSE ASSOCIATION, HELSINGFORS, FINLAND
AND
FINNISH WOOD PULP UNION, HELSINGFORS, FINLAND

# ZAREMBA EVAPORATORS

are unequalled in performance on

## SODA AND SULPHATE BLACK LIQUOR

for ease of operation, for readiness of cleaning and low cost of maintenance.

***18 installations for West Virginia P. & P. Co.***

Causticizing Equipment
Leaching Cells
Complete Soda Recovery Plants

*Send us details of your needs.*

## ZAREMBA COMPANY

**Niagara Life Bldg., Buffalo, N. Y.**

## Stickle Compound Condensing System and Automatic Steam Control for Paper Machines

The folder we sent out to the mills "HOW TO DRY PAPER" showing our automatic steam control and our compound condensing system for draining the dryers and heating the air with the discharge from the dryers to condition the machine room, should interest you. In many mills we can guarantee a saving of 20% in steam consumed in drying the paper and conditioning the air for the machine room.

**OPEN COIL HEATER & PURIFIER CO.**
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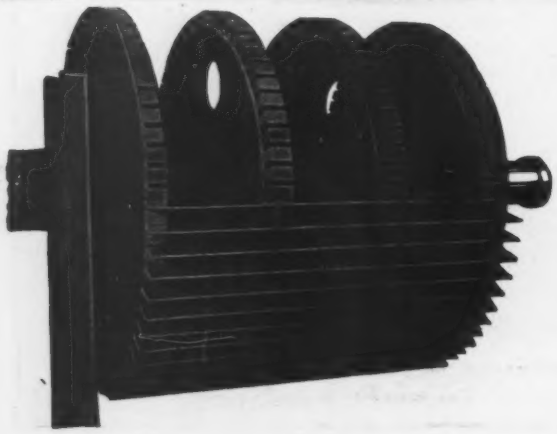

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THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY

**FIFTY-FIRST YEAR**

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XUM

# FEDERAL COMPLAINT AGAINST COAST PAPER MEN

## Arbitrary Designation as to "Legitimate" or "Illegitimate" Dealers Among Factors Involved in a Complaint Issued by the Federal Trade Commission Against the Pacific States Paper Trade Association, Its Officers and Members—Commission Avers That Enforced Price Schedules Are Maintained by Agreement

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., December 20, 1922.—Arbitrary designation as to "legitimate" or "illegitimate" dealers and the same adjectives applied to the channels through which their trade flows are among the factors involved in a complaint issued by the Federal Trade Commission against the Pacific States Paper Trade Association, its officers and members.

The Association, through its membership comprising a number of, "local associations," the complaint states, embraces practically all the wholesale dealers in paper and paper products throughout the States of Oregon, Washington and California. Other states affected in great part by the activities of the Association are Idaho, Nevada, Arizona, Montana, New Mexico, and the territory of Alaska.

Averments by the Commission are to the effect that by concerted agreement, adherence of members of local associations to the maintenance of enforced schedule prices, is consummated. It is further alleged that to the end that such schedule prices may be maintained and price competition eliminated throughout the Pacific States, the members notify their local associations and the Pacific States Paper Trade Association of infractions of the agreement to maintain standard prices, and these various associations bring pressure to bear upon the offending member to cease such practice.

### Respondents Named in Complaint

The respondents named in the complaint and who are given thirty days to make answer before the case goes to trial are:

Pacific States Paper Trade Association, B. N. Coffman, secretary; Seattle-Tacoma Paper Trade Conference, J. Y. C. Kellogg, secretary; Spokane Paper Dealers, W. B. Gilbert, secretary; Portland Paper Trade Association, Chriss A. Bell, secretary; Paper Trade Conference of San Francisco, B. N. Coffman, secretary; and Los Angeles Wholesale Paper Jobbers, J. R. Coffman, secretary.

The companies composing the above associations are:

American Paper Company, J. W. Fales Paper Company, Mutual Paper Company, Washing Pulp and Paper Corporation, Paper Warehouse Company, Inc., and The Seattle Paper Company, all of Seattle, Wash. Standard Paper Company and Tacoma Paper and Stationery Company of Tacoma, Wash., Zellerbach Paper Company, Blake, Moffit & Towne, Bonestell & Co., and Pacific Coast Paper Company, all of San Francisco, Cal.; John W. Graham & Co., Spokane Paper and Stationery Company, B. G. Ewing Paper Company and American Type Founders Company, all of Spokane, Wash.; Rogers Paper Company of Salem, Ore., Blake-McFall Paper Company, J. W. P. McFall, Endicott Paper Company, and R. L. Brackett and Chas. L. Frazier, partners, all of Portland, Ore.; Union Paper Company of Oakland, Cal., San Jose Paper Company and Delmas Paper Company of San Jose, Cal.; Richardson Case Paper Company and Eastman Gibbons Paper Company of Sacramento, Cal.; and Pioneer Paper Company, Standard Woodenware Company, R. L. Craig Company and Sierra Paper Company, all of Los Angeles, Cal.

A hearing on the charges set forth in the complaint will be held January 18, in the office of the Federal Trade Commission at Washington, D. C.

The complaint in part is as follows:

### Paragraph Two

By the common consent and agreement of the members, only dealers in paper or paper products who are dealers at wholesale only, who maintain a warehouse stock of the commodities in which they deal, from which they make delivery of the commodities sold by them, and who employ traveling salesmen through whom such sales are made, are entitled and admitted to membership in any foregoing association. A wholesale dealer thus qualified and defined is recognized by the members generally as having the right further to take orders for wholesale quantities of aforesaid merchandise to be filled by shipment to the purchaser directly from the manufacturer or other source of supply. Wholesalers, as above defined, are regarded by the members and are by them designated "legitimate wholesalers," and the distribution of paper and paper products from the manufacturers or other source of supply thereof, through such wholesalers to retail dealers and other large-quantity consumers, is regarded as being and is designated by the members the "legitimate" channel or channels of distribution. All other methods of wholesale distribution are regarded by the members as improper and illegitimate, and all dealers, brokers, agents, manufacturers dealing directly with the retail trade or the consumer, and other persons selling said products in wholesale quantities, who do not maintain warehouse stocks, traveling salesmen or otherwise come within the definition of the so-called legitimate wholesalers, as above set out, are regarded and designated by the members as "illegitimate" dealers.

### Paragraph Three

For about three years last past, the Pacific States Paper Trade Association, the local associations and the members, with the common purpose of restricting the wholesale distribution of paper and paper products throughout the Pacific States to the so-called "illegitimate" channels and of preventing such distribution by any other method or means or through any other agency than themselves, and with the further common purpose of suppressing competition in, and controlling and enhancing wholesale prices of, said products in the Pacific States to their own collective benefit, cooperating together have done and now do the following acts and things:

(a) The members refuse to sell to, or in any way supply so-called illegitimate dealers with paper and paper products;

(b) The members report to their respective local associations and to the Pacific States Paper Trade Association the names of all so-called illegitimate dealers in the Pacific States who come to their notice, and attempt to, and do, coerce manufacturers and other sources of supply into refusing to further supply said dealers with paper and paper products; and in instances where such offending dealer is a manufacturer desiring to sell directly to the retail trade or consumer, attempt to, and do coerce such manufacturer into abandoning such intended business;

Said coercion is accomplished by the members acting individually, and collectively through respondent associations, to bring to bear threats of boycott and other species of intimidation against said manufacturers and other sources of supply;

(c) To the end that the members be continously advised of the progress of the coercive measures set out in the preceding specification, and to the end that uniform action may be had, action taken by the members individually and by the local associations is notified to the Pacific States Paper Trade Association, and vice versa, and the Pacific States Paper Trade Association informs the local associations and the members of such action as has been

taken and takes such action itself and recommends and directs such further action by the members and the local associations as it deems best calculated to carry said coercive measures to a successful conclusion;

(d) The members of each local association agree upon and establish schedules of uniform minimum prices at which the commodities dealt in by them are to be sold by them in the territory of such association. The prices thus established are enhanced beyond the prices which would prevail under natural and normal competition in said industry in the absence of said price agreement;

(e) The adherence of members of the local associations to the schedules described in the preceding specification is assured and the maintenance of the prices therein fixed is secured by a system of fines provided for by the local association to be, and which are, exacted from any member making a sale or sales of said commodities at prices less than those set out in said schedules. The prices thus fixed, established and enforced are hereafter called schedule prices;

(f) That there may be a substantial uniformity in schedule prices throughout the Pacific States, providing for aforesaid enhancement of prices, the associations exchange said price lists with each other and supply the same to the Pacific States Paper Trade Association, to the end that by comparison and adjustment substantial differences in prices for like goods may be, and they are, eradicated by causing such prices as are below the general level of said enhancement and the average of said aggregate schedule prices, to be adequately raised;

(g) By common consent and agreement the members of each local association, when soliciting business or making sales in the territory of another local association, observe and abide by the schedule prices in effect in the territory where the sale is made and neither offer nor sell paper or paper products in such territory at prices less than said schedule prices;

(h) To the end that aforesaid uniform enhancement may be maintained and price competition eliminated throughout the Pacific States, the members notify their local associations and the Pacific States Paper Trade Association of infractions of the agreement set out in the foregoing specification, and these various associations bring pressure to bear upon the offending member to cease such practice. They, and each of them, are empowered to, and do levy fines against such offending members and are empowered to declare, and do declare, such territory to be "open"; that is to say, that the members of the various associations may, and they do, until recision of said last named action, disregard the schedule of prices in effect in said territory and sell their commodities therein at such prices as they see fit to demand.

The result and effect of the foregoing practices has been and now is substantially to lessen and restrict competition in the sale of paper and paper products in the Pacific States; to prevent brokers, agents and manufacturers selling direct to the retail trade or consumer and other persons not members of the local associations from selling paper and paper products at wholesale in the Pacific States; to enhance the wholesale prices of said commodities above the prices which would prevail therefor under normal, natural and open competition, and to hinder the natural flow of commerce in said commodities in the channels of interstate trade.

### Paragraph Four

The above alleged acts and things done by respondents and by each of them, have a dangerous tendency unduly to hinder competition and to create a monopoly of the wholesale paper trade in the Pacific States in the hands of respondents and constitute unfair methods of competition in commerce within the intent and meaning of Section 5 of an Act of Congress, entitled, "An Act to Create a Federal Trade Commission, to define its powers and duties, and for other purposes," approved September 26, 1914.

## $25,000,000 Hydro-Electric Development for Quebec

Actual work on harnessing of the power resources of Lake St. John and the Saguenay River, in the Province of Quebec, Canada, was announced Monday by a company composed of United States and Canadian financiers.

Heading the company is James B. Duke, and associated with him is Sir William Price, of Price Brothers & Co., Ltd., Quebec, one of the largest print paper firms in the Dominion of Canada, who is vice-president. Other officers include W. S. Lee, H. L. Brown and J. M. McCarthy as vice-president; W. C. Parker, secretary and treasurer, with George G. Allen and W. R. Perkins, of the board of directors. All of the foregoing are residents of the United States with the exception of Sir William Price and Mr. McCarthy, who are citizens of Canada.

The company, incorporated under the laws of Canada, is capitalized at $25,000,000, the entire capital stock having been subscribed by Mr. Duke and by Sir William Price.

Two developments for electric power plants are provided for in the plans of the company—the first at the point where the lake feeds its waters into the head of the river, which will furnish 40,000 horsepower, and in due course a second development will be made which will add an additional 800,000 horsepower of a total of 1,200,000. The last development will be at a point approximately twenty-two miles from the lake, at a point where the river drops directly into tide-water only a few miles from present available navigation. The work already started, Mr. Duke said, is on the first development at the junction of the lake and the river.

As a part of the plan it is announced that Price Brothers, Ltd., have entered into a contract with the new company for 200,000 horsepower to be used in their paper mills, high power transmission lines from the first plant to lead directly to the Price mills. It is also announced that the paper manufacturing company, with the new power available, is adding new mills, which will make the company the largest producer of news print paper in the world.

It will be approximately two years, Mr. Duke explained, before the first of the new power will be delivered. In the meantime the development plans include the construction of a railway which will tap the Canadian National lines at Herbertville and the building of the power plant, which, briefly described, will consist of twelve units, each capable of developing 35,000 horsepower.

To secure a continuous water pressure even in the coldest of weather dams will be constructed which will raise the level of Lake St. John twenty feet, permitting a continuous flow to the turbines beneath a greater thickness of ice than has ever been recorded in that district.

Mr. Duke and several of his New York associates in the enterprise recently returned from a visit to Canada. He said that the project, which had been in his mind since 1912, was made possible through the assistance of Hon. L. A. Taschereau, Prime Minister of the Province of Quebec, who has had the vision and foresight to see that this presents unlimited possibilities for the development of the natural resources of his province. The engineering part of the development has been placed in charge of W. S. Lee, a well-known electrical and hydraulic engineer.

The work now actually under way, Mr. Duke stated, includes the sinking of the coffer dam for the power plant foundations, the construction of the connecting railway over which the material will be handled, and the preliminary steps necessary to raise the level of the lake to the desired height. Contracts for the necessary electrical machinery are now being made ready for tenders from the companies engaged in that line of work.

It is not only the paper mills which will benefit by the development, Mr. Duke added, but the entire province. Less than 100 miles from Quebec, the country is richly developed and affords numerous opportunities for industrial plants. Price Brothers' paper mills alone, Mr. Price said, will effect a saving of $1,000,000 a year in coal through the use of this electric power.

XUM

# LOW WATER BIG HANDICAP TO NEW YORK PULP MILLS

**Production Has Already Been Greatly Reduced and Practically No Ground Wood Is Available—Streams in Canada, Wisconsin, and Elsewhere, Are Drying Up and Paper Concerns Everywhere Are Suffering—Algonquin Paper Corp. Is Name of New Company Just Organized to Take Over Property of Ogdensburg Paper Mills, Inc.—Newton Falls Paper Co. Officials Visit Plant.**

[FROM OUR REGULAR CORRESPONDENT.]

WATERTOWN, N. Y., December 18, 1922.—An industrial crisis now looms menacing and apparently unavoidable in this section of the state, due directly to the unprecedented drought which obtains. Without water power the mills along the Black river and other streams of the region must shut down, and already the streams are at record low water mark with no prospects of relief in sight. Plants are already seriously handicapped and many will be down entirely soon if the unexpected does not happen and heavy rains save the situation.

The paper mills along the Black river are always first to feel the effects of low water and already production is greatly reduced. It has been impossible to operate ground wood mills, and without ground wood paper can not be manufactured. Manufacturers say that there is practically no ground wood available, every pound on the market having been picked up. Unless the wood mills can be started the paper machines must go down when the present limited supply is exhausted.

The big St. Regis Paper Company plant at Deferiet, with plants in all sections of the United States and Canada, is beginning to suffer seriously. One machine has been down considerably of late and it is expected that continued drought will soon shut down all the plants dependent upon production of wood pulp. It is said that the dry streams obtain in Canada, Wisconsin, Pennsylvania and the East and that paper companies everywhere are suffering.

The dire necessity for water storage facilities is emphatically emphasized. Were the plans of the Board of the Black River Regulating District now effective the trouble would not be possible. With five times the present capacity of the Stillwater reservoir available, the summer low water period would have been relieved and there would be available at this time as much water as the present capacity of the reservoir. This would save the day.

With no rains and no water in the ground and the ground and streams about to take on the usual coating of ice, the winter looks dismal for the paper industry. Paper manufacturers do not care to broadcast pessimism, but they admit that the country is very liable to run short of news print paper in the near future as a direct result of the drought and no counteracting storage of water. Even the hydraulic plants will have their horsepower reduced to a minimum by the low water

### Algonquin Paper Corp. Formed

Algonquin Paper Corporation is the name selected by the new company which has just been organized to take over the property of the Ogdensburg Paper Mills, Inc., and start a large paper mill in Ogdensburg. The concern is capitalized at $2,000,000 and the controlling stockholders are Frank A. Augsbury, president of the George Hall Coal and Transportation; Stuart D. Lansing, president of the Bagley and Sewall Company, and G. M. McKee, formerly of the Donnacona Paper Company. As soon as the incorporation papers are approved officers will be elected.

The contracts for power, machinery and equipment have been agreed upon and are ready for signatures when officers are elected. Option on the Continental building has been exercised, and the new company has purchased adjacent properties on which the siding will be laid. G. M. McKee is to be the general manager and takes up his duties this week.

Plans for the new building which is to house the big paper machine are now being perfected by Charles A. Eaton, local paper mill and hydraulic engineer, and work will start at once. The Bagley & Sewall company will build the machine. The mill will employ 190 men and will have an output of 80 tons daily.

The main building will be lengthened 120 feet and widened about 18 feet to accommodate the machine. The roof over the main part of the plant will be removed and lowered to one story. The dock will be enlarged and a pond provided for holding pulpwood, all of which will be delivered direct to the mill by boats from Canada.

It is estimated that about 20,000 cords of wood a year will be used and the docks will be modernly equipped with machinery for unloading purposes. Water shipment of the manufactured product to lake ports will be made from the docks. During the winter season the work on the docks will be completed, and the work on the building will progress as weather permits. It is expected that the mill will go into operation some time next June.

### Officials Visit Newton Falls Paper Co.

Several officials of the Newton Falls Paper Company made a visit of inspection to the plant last week. They passed several days in the mill town. Those in the party were: James H. McGraw, Sr., president of the McGraw-Hill Company; A. J. Baldwin, vice-president of the McGraw-Hill Company, and president of the Newton Falls Paper Company; and C. H. Thompson, treasurer of the McGraw-Hill Company. The officials are all from New York, and they expressed themselves as well pleased with conditions at the mill and in the town of Newton Falls, all of which are owned by the company.

## Interest in Paper Stocks in Montreal

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., December 18, 1922.—Among the paper issues this week Abitibi was the leader. There was a good trading market for the stock all the time and in addition traders are beginning to put it away in anticipation of a probable dividend on towards the middle of the coming year. The reaction which has taken place in the stock for some months past has made it a popular one for in and out traders and this kind of buying has helped swell the daily transactions to a considerable extent.

By its strong action during the recent decline Abitibi further attracted much attention and set in motion about the Street many theories as to what the explanation was. The latest market reports show that it furnished trading in 4,555 shares and advanced a point to 66, which is only 2½ points below the high for the year. It is generally conceded that the company is a very low cost producer, and that with the capacity operations which have prevailed practically throughout the current year, it seems obvious that its earnings have been good. Consensus of opinion places them around 12 per cent. on the common stock.

On the strength of these assumptions, and in view of the $5 a ton increase in the price of news print which goes into effect next month, it is believed by many that the dividend rate will be advanced. There is a psychological explanation for the recent moderate revival of interest in the paper group to be found in the near approach of the date when the new prices take effect.

Brompton has been the leader this week among the low priced paper issues. Some new interests have been more active in it recently and have been recommending it for a purchase, in view of the increased earning power the company is now sure to show during the coming year. In some quarters there is a disposition to believe the progress being made by the company will warrant the dividend on the preferred being resumed by next summer and a possible payment on the common by the end of next year or the beginning of 1924.

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# WISCONSIN PAPER INDUSTRY AT MILWAUKEE EXPOSITION

**Product Shown by Twenty-Six Paper Mills Attracts Interest of Thousands of Visitors From All Over the State—White Rapids Paper Co. Postpones Erection of Dam Because of Legal Complications—Wisconsin Service Co. Signs Contract to Supply Peshtigo Paper Co. With Electricity for Period of Ten Years—Pulpwood Logging Operations Started in Wisconsin and Minnesota.**

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., December 19, 1922.—The paper industry in Wisconsin has done more to win the interest of the people of this state and to secure the recognition of its magnitude by its exhibits at the Wisconsin Products exposition in Milwaukee from December 14 to 21, than by any single effort since the first mill was erected in Wisconsin. Thousands of persons from all parts of the state are visiting the great exposition and nothing interests them more than the section arranged by twenty-six Wisconsin paper mills to sell the people on their greatest industry. The mills have the largest, most elaborate and most comprehensive display in the great auditorium that has ever been made. Every product of Wisconsin mills is on display, huge photographs describe the process of papermaking in great detail and a miniature machine manufactures paper all day.

Preparations for the exhibit had been under way for several months under direction of a committee which included several of the best known papermakers in the state. The exhibit is under the direct charge of G. M. Hafenbrack of the Nekoosa-Edwards Paper Co. The 26 mills co-operating in the movement are Kimberly-Clark Company, Appleton Coated Paper Company, Patten Paper Company, Ltd., Riverside Fibre and Paper Company, Outagamie Paper Company, Nekoosa-Edwards Paper Company, John Strange Paper Company, Bergstrom Paper Company, Lakeview Paper Company, Rhinelander Paper Company, Thilmany Pulp and Paper Company, Grandfather Falls Company, Wausau Paper Mills Company, Whiting-Plover Paper Company, Wisconsin River Paper and Pulp Company, Gilbert Paper Company, Marathon Paper Mills Company, Consolidated Water Power and Paper Company, Flambeau Paper Company, Dells Paper and Pulp Company, Wolf River Paper and Fiber Company, Combined Locks Paper Company, Marinette and Menominee Paper Company, Great Western Paper Company, Wausau Sulphate Fibre Company, Neenah Paper Company.

Wisconsin today has 59 paper mills with a daily output of 2,642 tons of paper. This state ranks fourth in the Union in the number of mills and ranks second in the number of pulp mills. It has 49 plants of that nature with a capacity of 642 tons of ground wood, 1,063 tons of sulphite fiber and 250 tons of sulphate fiber every day.

There are two well defined papermaking districts in Wisconsin, the Fox river valley and the Wisconsin river valley, but mills are scattered over other portions of the state. Twenty-four mills are in the Fox river valley, seventeen in the Wisconsin river valley and six in the Peshtigo and Menominee valleys.

Wisconsin paper mills employ normally 16,300 persons, with an annual payroll of $29,317,000. The mills represent an invested capital of $115,000,000, with a total output of 603,000 tons of pulp valued at $34,000,000 and 797 tons of paper worth $92,000,000 a year. Approximately $16,700,000 worth of pulpwood is consumed annually by the Badger mills.

The first paper mill in Wisconsin was built in Milwaukee in 1846. It was constructed at a cost of about $10,000, employed 10 men. Its output was two tons a week, sufficient to take care of the press of the state and leave a surplus for the Chicago market. The first mill in the Fox river valley was built at Appleton in 1853 and the Interlake mill still is operating on the site of that old plant.

### White Rapids Paper Co. Postpones Dam Construction

Because the United States waterpower commission has no jurisdiction over the Menominee river, which is the boundary between the upper peninsula of Michigan and the state of Wisconsin, the White Rapids Paper Company, organized a year or more ago, must postpone erection of a dam across the river to develop waterpower for a paper plant to be erected later. The Federal Commission notified the company that the Menominee river is not a navigable stream and therefor the United States Government has no jurisdiction over it. The paper company must secure permits from the states of Wisconsin and Michigan before it can go ahead with its plans. When this will be done is uncertain, according to Edward M. Hooper, Oshkosh, president of the company.

The waterpower site formerly was owned by Moses Hooper, E. M. Hooper and Ben Hooper of Oshkosh, and Thomas E. Orbison, well known paper mill engineer, of Appleton. A year or so ago the White Rapids Paper Company was organized and took over the property. The officers are E. M. Hooper, president; Ben Hooper, vice-president; T. E. Orbison, secretary and treasurer. When the company was organized it was stated that it had no plans for immediate development of the project.

### To Supply Peshtigo Paper Co. with Electricity

The Wisconsin Service Company, a large utility operating in Eastern and Northeastern Wisconsin, has signed a ten year contract to supply the Peshtigo Paper Company, with electric power for its requirements up to a maximum load of 3,300 horsepower. The paper company now owns and operates a small hydro-electric plant at Potato Rapids, near Peshtigo, which supplies part of its need. A 66,000 volt transmission line of the utilities company passes close to the Potato Rapids plant and it is probable a large part of the energy sold to the paper company will be delivered at the company's power plant. It is said the contract provides sufficient power to not only operate the Peshtigo mills but permits a considerable expansion.

### Japanese Visitors See Consolidated Paper Machine

There is a possibility that a huge paper machine, duplicate of the one now operating in the Consolidated Water Power and Paper Company, plant will be erected for a Japanese mill as a result of a visit to the Wisconsin Rapids plant by a delegation representing the Okawa mills of the Nipponese kingdom. The delegation consisted of Tetsuo Okawa, son of H. Okawa, owner of a great system of mills in Japan, M. Aria, superintendent of the Okawa mills and Mr. Aria's son. The visitors were guests of the Beloit Iron Works while in this section of the country. They have visited mills in several states and in Canada. Mr. Okawa said they have visited many mills in Europe but have not seen a machine which equals the speed of the Consolidated company's giant. Fifty-four machines are operated in the Okawa plants which employ more than 40,000 persons.

### Pulpwood Logging Started

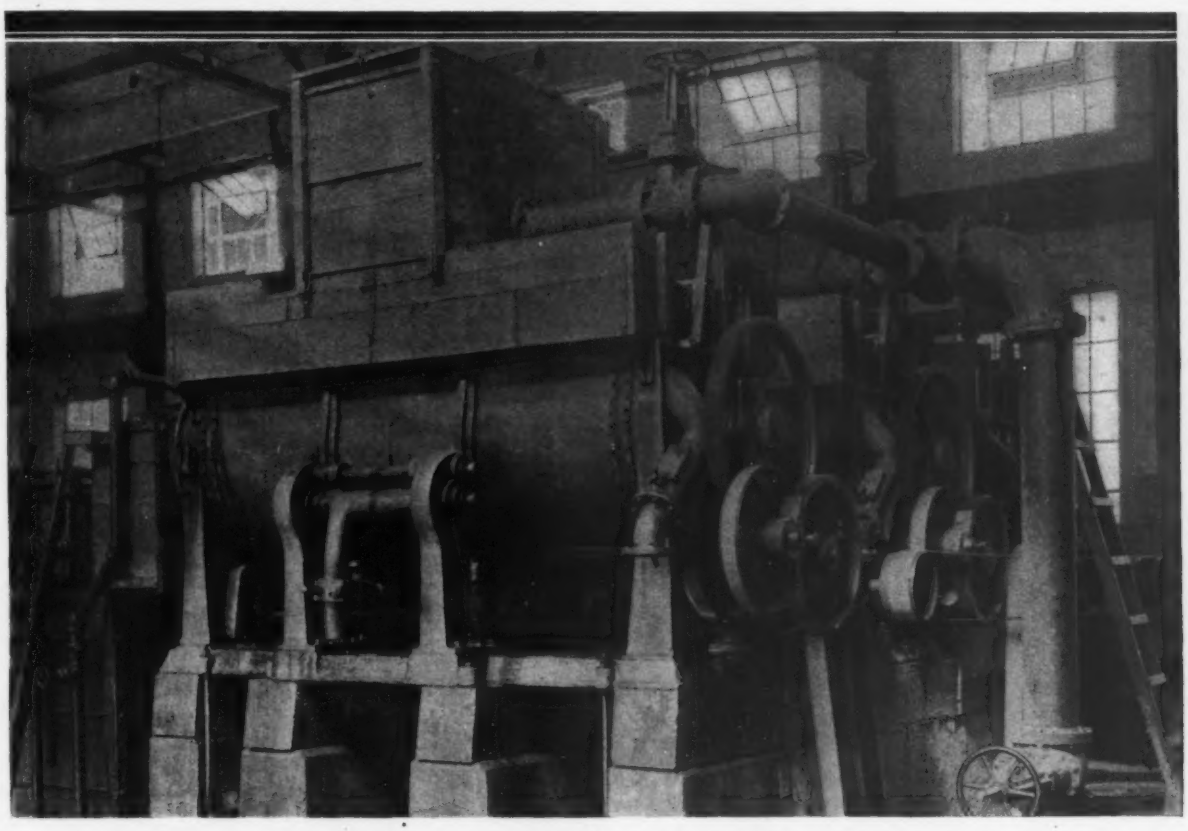
Pulpwood logging in northern Wisconsin and Minnesota has been started and the recent snowfall has given it impetus. A logger for the Marathon Paper Mills Company has already produced more than 1,000,000 feet of his contract for 3,000,000 feet.

## Huge Roller Bearing for Canadian Mill

[FROM OUR REGULAR CORRESPONDENT.]

MONTREAL, Que., December 20, 1922.—The largest roller-bearing in the world is reported to be on exhibit at the Motor Show in London, England, before its shipment to Canada. It is over four feet high, weighs more than a ton, and is of the chain type, like those recently tested by the British Railways. This giant bearing, and two others like it, will be installed in a Canadian pulp mill.

XUM



*and at the* GILMAN PAPER COMPANY
GILMAN, VERMONT

# 3 BIRD SCREENS

**feed 65 tons of Kraft Stock to the 164-inch machine each day.**

This Company has found that Bird Screens supply always a continuous flow of properly screened stock, improve quality and increase production.

12,000 TONS of paper pass through BIRD SCREENS daily.

BIRD MACHINE COMPANY
SOUTH WALPOLE, MASSACHUSETTS

*Western Representative*
*T. H. Savery, Jr., 1718 Republic Bldg.*
*Chicago, Ill.*

*Canadian Builders of Bird Machinery*
*Canadian Ingersoll-Rand Co., Ltd.*
*260 St. James Street, Montreal, Canada.*

4746

# BIRD ROTARY SCREENS

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# TORONTO PAPER MERCHANTS OPTIMISTIC REGARDING 1923

**While Most Lines Are Seasonally Quiet the Outlook for the Coming Year Is Said to Be Encouraging—News Print Is in Active Request and Mills Are Said to Be Experiencing No Difficulty in Obtaining the Advance of $5.00 Per Ton Recently Announced on New Contracts—No Truth in Proposed Rumor of Abitibi and Spanish River Merger—Other News of General Interest.**

[FROM OUR REGULAR CORRESPONDENT.]

TORONTO, Ont., December 18, 1922.—The busiest line in the market during the past few days has been wrapping paper as the unprecedented holiday trade has created a big demand for fiber and kraft. Other grades are experiencing a seasonal quietness. The outlook for the coming year is regarded as promising and jobbers are in an optimistic mood. News print is in active requisition and mills are entering into contracts for 1923 and are experiencing no difficulty in securing the advance of five dollars a ton on both sheet and news stock. Roll news is selling at three and three-quarter cents in car lots and, in less than car lots, at four cents, f. o. b. mill, net. Sheet news is quoted at four and a half cents in car lots; four and three-quarter cents in two tons lots and over, and at five cents in ton lots.

There has been a rumor in local circles that a merger was being contemplated between the Spanish River Pulp and Paper mills and the Abitibi Power and Paper Company. Inquiry at the head office in Toronto of the Spanish River Company elicits the information that there is no ground whatever for such a misleading report. The plants of both concerns are running to capacity, the Abitibi Company turning out five hundred tons daily and the Spanish River organization six hundred and seventy tons.

There has been a reduction of ten per cent in the cheaper grades of tag manila, while a similar decrease has taken place on sulphite bristols in order to meet the level of market quotations prevailing on the other side of the border. The pulp market is considerably quieter at present but it is expected that the demand will pick up materially after the holiday period.

### Mr. Logie Retires from Eddy Co.

Benjamin Logie, who for the past nineteen years has been with the local branch of the E. B. Eddy Company of Hull, Que., and for the past few years manager in Toronto, is retiring from the service at the end of the year. Last week he was presented by the employes of the warehouse with a gold Masonic ring, suitably engraved. Arthur H. Paffard, of the firm of Armstrong & Paffard, Limited, Toronto, who has been in the wholesale grocery line for many years, succeeds Mr. Logie as manager of the Toronto branch and will enter upon his new duties on the first of January.

### Price Bros. Win Law Suit

In the High Court in Toronto during the past week Price Bros. & Co., of Quebec, won an important suit against Stauntons, Limited, manufacturers of wall paper, Toronto. The action was to recover $33,724 which was the price of seven hundred tons of roll hanging paper required to print wall paper, sold by the plaintiffs to the defendants.

Judgment was delivered for the plaintiffs for the amount claimed with interest and costs. A counter claim was dismissed with costs. A stay of ten days was granted.

### The Curve of Pulpwood Demand

The Lincoln Mills, Limited, which operate pulp and paper mills at Merritton, Ont., of which E. A. Sterling is vice-president, in charge of woods operations, which are carried on principally at Little Cascapedia, Que., report that the improved trend in the pulp and paper market should logically increase production and create a strong demand for pulpwood at higher prices. Mr. Sterling says that, according to his observations, this has not taken place to the extent which might be expected although the curve of pulpwood demand and prices has shown a definite upward trend for some time. There is considerable wood on hand at some of the mills while others have reduced their inventory to the point where it must be replenished during the winter. On the whole, the pulpwood supply at the mills seems to show a great irregularity but advices are to the effect that the totals or averages of stocks on hand are below normal.

### United Paper Mills Get Out New Cabinet

There has been sent out to consumers, printers and others by the United Paper Mills, Limited, Toronto, a handsome all steel cabinet, which is sectionalized and contains every line of paper, envelopes, cards, cover papers, etc., carried by the firm. The classification is most comprehensive and in each instance the substance number is given, the sizes, finish, number, color, etc. Many of the samples are contained in special cartons and the former can be given to customers of the various firms which have the cabinets, and replacements promptly obtained from the United States Mills. Samples of stereotyping, engraving, printing, colored inks, etc., on different varieties of cover, and special papers were contributed by various firms who co-operated in the preparation of the contests. The United Paper Mills have received many congratulatory letters on this latest stroke of enterprise.

### Notes and Jottings of the Industry

T. F. Patton of the J. F. Patton Company, Inc., New York, pulp and paper exporters, was in Toronto recently calling upon the trade.

A provincial charter has been granted to the Fullerton Publishing Company, Limited, Toronto, with an authorized capital stock of $100,000, to engage in the publishing and printing business.

The many friends of H. C. Woods, manager of Warwick Bros. & Rutter, manufacturing stationers, Toronto, are extending sympathy to him in the death of his wife which took place last week following an operation.

L. C. Walker, of Vancouver, formerly sales manager of the Whalen Pulp and Paper Mill, Limited, has been appointed representative of the Forest Products Market Extention Bureau of British Columbia and is in Toronto on business.

The Elixman Paper Box Company of Canada is erecting an addition to its factory in Hamilton in order to take care of increased business.

W. H. Sherriff, of the Hodge-Sherriff Paper Company, Toronto, selling agent for the Wayagamack Pulp and Paper Company, Three Rivers, Que., has gone on a business trip to England and will visit the foreign agents of the firm.

Mr. Nicholl, formerly of London, Ont., has been appointed western Ontario representative of the Canadian Nashua Paper Company, of Peterborough, manufacturers of wax paper, gum paper and other allied allines.

T. J. Allen, vice-president of Paper Sales, Limited, Toronto, who has been ill for several weeks, is able to be at his desk again.

Rupert Huntley, son of A. Huntley, manager of the Hodge-Sherriff Paper Company, Toronto, won the gold medal at the High School of Commerce, for the general course. Last year he won the medal for accountancy.

The Strathcona Paper Company, of Strathcona, Ont., manufacturing box board, building and wrapping papers, reports that the outlook for 1923 is good and is of the opinion that prices will remain about the same as they are at present. The company intends making improvements to its beating and boiler room in order to run both machines to capacity.

Among the callers on the Toronto trade during the past week was De Forest Coutts, representing the Whiting Paper Company, of Holyoke, Mass.

XUM

**NIAGARA BEATERS SAVE POWER**

# It isn't the SIZE of the MOTOR that COUNTS

## It's the POWER USED PER TON OF STOCK PRODUCED

And the amount of power used in beating may make the difference between profit and loss. NIAGARA BEATERS require a large motor, but their greater speed and greater capacity more than make up the difference. On this page appears an actual test, the comparison between the HORSEPOWER HOURS required by a NIAGARA BEATER and Holland type engines on a given amount of stock. More information regarding the performance of NIAGARA BEATERS is yours on request. There are many reasons why this engine will lower costs for you. Find out more about it. Let us demonstrate further that the

## NIAGARA BEATER SAVES POWER

**Valley Iron Works Co.**

**Plant: Appleton, Wis.** **New York Office: 350 Madison Ave.**

## A POWER COMPARISON

**Furnish:** Ground Wood & Bleached Sulphite for Book Papers

**Power Installed:**
100 HP for 1-2000 lb. Niagara Beater
150 HP for 2-2000 lb. Holland Beater

| Operation | 2000 lb. NIAGARA Time in Hrs. | Power in H.P. | Consump. in H.P. Hrs. | 2000 lb. HOLLAND Time in Hrs. | Power in H.P. | Consump. in H.P. Hrs. |
|---|---|---|---|---|---|---|
| Furnishing | 1-4 | 60 | 15 | 5-12 | 40 | 17 |
| Beating | 1-5 | 100 | 20 | 7-12 | 70 | 41 |
| Emptying | 1-20 | 80 | 4 | 1-4 | 45 | 11 |
| Total | 1-2 | | 39 | 1 1-4 | | 69 |

39 HP hr. used per ton of Stock produced.

69 HP hr. used per ton of Stock produced.

**Saving** $\frac{69 - 39}{69}$ **= 43% Saving in Total Power consumption**

# SEASONAL SLOWING UP SEEN IN THE PHILADELPHIA MARKET

**While City Business Was Less Inactive Than It Has Been, Orders from the Country District Was Rather Better Than Usual at This Time—Central Paper Bag Manufacturing Co. is Getting Located in Its New Building at 1732 North Blair St.—A. Rose & Son, Paper Stock Dealers, to Remove to New Building at 2527 E. York St.—John M. Driver Co. Expands.**

[FROM OUR REGULAR CORRESPONDENT.]

PHILADELPHIA, December 19, 1922.—Spottiness continued to be the characteristic of the jobbing business on both fine and wrapping papers during the week and was a source of more than usual comment, perhaps, however, only because of the larger expectations which had been formed as a result of the steady increase of business since the turn of the tide on Labor Day. As a matter of fact, while business of the week was not up to the expectations of those who simply looked forward, it quite measured up to the satisfaction of those who looked behind, because the last half of December always has been an off month among the distributors in their day by day business and the present experience is by no means an exception to the rule. However, while the trade in Philadelphia lagged behind a little, there came from the country district a volume of business considerably larger than usual at this time and this almost offset the loss locally, so that after all the volume for the week was little behind that of the preceding period. Prices remained firm on all lines of paper and are expected to continue thus. From the manufacturer's point of view as reflected by visiting salesmen, the most serious problems to be faced are not those of orders, but of raw material, particularly casein and difficulties in transportation.

There was more variety in paper stock experiences of the week than for some time past. The only quotable changes in price was an increase of 50 cents on solid ledger stock and on writing paper and a decline of 10 cents on container manilas. However, the day by day demand of the mills was of a rather contrasting character, the eager inquiry of one day being followed almost the next by complete indifference as to offerings.

### Central Paper Bag Co. Moves

Removal of the Central Paper Bag Manufacturing Company to its newly purchased home, 1732-1738 North Blair street, is about completed and the firm is now installing the bag manufacturing machinery with prospects of having the plant in full operation by the first of the new year. The old home, located at 831 Ellsworth street has been disposed of. In the new quarters a large three-story property occupying four store fronts, every modern bag manufacturing device is to be installed, making the establishment one of the largest plants of its kind in this section of the country. All the equipment which was used in the Ellsworth street plant is to be installed and after the first of the year additional machinery will be added. The building, purchased by the proprietors, Harris Kardon and his son Jacob H. Kardon, has been rebuilt and modernized. The firm removed to the building at 831 Ellsworth street but a year ago after purchasing that building and previous to that time was located in the Harris-Kardon Building on Second street below Chestnut. Business increases necessitated the removal to larger quarters and the present home was acquired. The new building is near a railroad siding of the Pennsylvania Railroad and will enable the firm to speed up in the delivery of the several carloads of bags which weekly are being shipped. All the products from the bag manufactory are marketed under the Adelphia brand and consists of a general line. Recently new equipment in the way of machinery for the manufacture of bags with automatic printing devices attached were installed in the old headquarters, Harris Kardon, head of the firm is well known in the bag and coarse paper trade, having for years been established in the large six story building recently rebuilt into a modern business home on Second street, below Walnut street, and which he still owns.

### A. Rose & Son to Move to New Building

A new home has been acquired by A. Rose & Son, paper stock dealers, 2527 East York street, and removal to the new building will be made after this week. The property which was purchased consists of a two-story building at 2824 Jasper street, and which is now in a process of being remodeled and enlarged for occupancy as the main offices and garage for the fleet of twelve trucks which the firm maintains. The firm proposes to dispose of its warehouse, negotiating all sales of paper stock by direct transportation from the packers direct to the mills, thereby eliminating the accumulation of stock in storage. In addition to the garage and executive offices, a repair shop also will be provided. The firm was established many years ago and is owned by Abraham Rose and his son, Harry Rose.

### Hinde & Dauch Improvements at Gloucester

An additional wing has been erected to the paper box plant of the Hinde & Dauch Company, at Gloucester, N. J., and consists of a one-story building which covers a space of 50x120 feet, and adjoins the large building already erected. In the box plant, a line of corrugated boxes is being manufactured. On the property there is also located a paper mill with two machines engaged in the manufacture of the board used in the manufacture of the containers. Two new boilers of the Babcock & Wilcox type have been installed in the boiler room, replacing the old type. The new box department was put into operation during the month under manager, B. H. Wendt.

### Enterprise Paper Co. to Celebrate

In celebration of its fourteenth anniversary and for the purpose of establishing a permanent annual gathering, the Enterprise Paper Company, Third and Callowhill streets, dealers in coarse paper and paper specialties will be the host to its force of employees and a banquet to be given in the Adelphia Hotel on December 28. A committee has been appointed by Nathan D. Isen, proprietor and host of the occasion to attend to the details of the banquet, and to provide for a vaudeville entertainment during the dinner service with a theatre party later in the evening. The committee consists of David Back and A. B. Kehr. Twenty-five members of the sales, office and shipping forces are to be guests. All are employed in the Philadelphia headquarters. While this banquet is especially designed to celebrate the fourteenth anniversary of the firm's business history, it will be the first of a series to be given annually in a get-together celebration for executive and employee.

### John M. Driver Co. Expands

Further expansion in the business of the John M. Driver Company, 55th and Hunter streets, was made when the firm took over additional floor space, giving it a manufacturing capacity of 20,000 square feet. In the new space taken over, there has been installed three more bag machines and printing equipment consisting of several job presses of the Colts Armory type. The holiday season demands for the special glassine holly, printed papers has been the largest in the firm's history and is being shipped at the rate of a one and a half carloads per week. During the past year, eight bag machines have been installed, each equipped with automatic printing devices and devoted to the converting of high grade glassine specialties for confectioners, cigar manufacturers, and the box trade in plain, printed and colored effects. In line with the plans of expansion, the Driver Company now has branch offices located in New York at 27 Thames street, under the management of

*(Continued on page 26)*

Copyright 1922, by The Goodyear Tire & Rubber Co., Inc.

# 97% Goodyear-Equipped—and the G.T.M.

***It is six years now*** since the G. T. M.—Goodyear Technical Man—made his first analysis for the Westfield River Paper Company, at Russell, Massachusetts. He has returned to the plant time and again since November, 1916, to make analyses of other drives, and each time he has found those first seven Goodyear Klingtite Belts he specified still on the job and in working trim.

***That earliest problem*** was one of recommending the most efficient and economical belting for seven transmission drives on which three of the belts run crossed and all on cone pulleys, nearly vertical. In addition, forked shifters are used at intervals.

***The G. T. M. gave expert study*** to the drive requirements and the working conditions. He calculated carefully all the pulley dimensions, loads, and other factors involved. He noted particularly the need for belting with exceptional friction qualities, flexible yet tight-gripping and slipless.

***He recommended*** seven 8-inch, 6-ply Goodyear Klingtite Belts. These belts, to quote from a letter written in July of this year by Supt. Lewis Dozier, "have given uninterrupted service, looking today as if they would run satisfactorily for some years to come. Edges of belt show no abuse from shifting."

***The service these Goodyear Belts*** gave earned for the G. T. M. the opportunity to analyze the entire plant of the Westfield River Paper Company, and today 97% of the Company's belting is Goodyear Blue Streak or Klingtite Belts.

***You can get*** the same intelligent service from the Goodyear Technical Man and the same economical, efficient and trouble-free operation from Goodyear Belts for your mill. These belts last longer and do better work because they are not built and bought just as so much belting, but as *the right belts* for the job, specially designed, constructed and specified to their work. For further information about the Goodyear Analysis Plan and Goodyear Mechanical Rubber Goods, write to Goodyear, Akron, Ohio, or Los Angeles, California.

*Goodyear Means Good Wear*

GOODYEAR

XUM

# SEASONAL SLOWING UP SEEN IN PHILADELPHIA MARKET

(*Continued from page 24*)

Walter DeGroot. The New York headquarters will be used as a sales office and stock distributing headquarters. A Chicago office has been acquired at 4954 Kenmore avenue, under Manager J. Perlberg, formerly associated with Alex Herz Company, of New York City. The Boston branch under management of Robert Sexton, is located at 201 Devonshire street. L. E. Cummings is in charge of the San Francisco offices with headquarters at 323 Market street, and will look after the Pacific Coast trade. Several other offices have been opened in the smaller cities throughout the East.

### Auer & Twitchell Co. Rebuilding

Rebuilding of the damaged portion of the plant of the Auer & Twitchell Company, 20th street and Erie avenue, which last week was visited by fire, has been started and will consist of the repairs in the enameling department where the explosion which caused the damage took place. The repaired portion of the building which was fully covered by insurance was estimated at $6,000 and the stock of paper tubes in the plant of the Consolidated Paper Tube Company, a subsidiary of the Auer & Twitchell Company, directly adjoining the enameling room was damaged to the extent of $5,000. Owing to the fireproof wall which separates the Consolidated plant and the enameling room, a more serious fire was averted. Owing to the large number of holiday orders on hand, the remainder of the plant, which was not destroyed by fire, was immediately put into operation.

### Now the United Bag & Paper Co.

Transfer of the West Philadelphia Jobbing House, 63 North 3d street, to a new management and a change of title was made recently when L. Rubin purchased the good will and business of M. Glotstein, formerly proprietor of the Jobbing House. Under the new management the title of the firm has been changed to United Bag and Paper Company, and will engage in the business of jobbers of paper, twine, paper bags and boxes. Although the ownership has been transferred to L. Rubin, who formerly was in business in Salem, N. D., the management is left solely in the hands of M. Glotstein. The firm was established two years ago by its former proprietor. The sales force has been increased through the addition of Thomas Diamond, who will look after the Frankford and Kensington territories, and Abraham Gotleib, who will take care of Camden.

### Hawes Paper Co. in New Home

Installation by the Hawes Paper Company of manufacturing facilities in its new home at 1721-1723 North Second street, now is completed and the factory is running night and day on the line of wax papers and lunch rolls and the waxing of krafts in which it specializes. The new building consisting of a one-story structure, covering a large area was erected by the proprietor, New Hawes, and occupancy taken upon removal from the former location at 223 North 23rd street, where the firm established its business during the war days. In addition to the equipment from the old plant, several new waxing machines were added, providing for a 50 per cent. increase in productive capacity.

### A Growing Paper Specialty House

The Melchoir Paper Company, organized two years ago, is seeking larger quarters for 1923.

Its "Sterling Quality Glassine," of which it shows a beautiful line of embossings, consisting of thirty different designs, as well as a wonderful variety of colors, has become very popular with the trade.

The firm is an exclusive Philadelphia representative for the McLaurin-Jones Company, with mills at Brookfield, Mass; Ware, Mass., and Newark, N. J., and carries a large stock of sealing tapes for the convenience of the trade, incuring prompt deliveries.

The company is also featuring printed sealing tapes, making a specialty of trademark and other elaborate designs.

P. F. Melchior says, "It is astonishing, the number of purposes for which tapes can be used, particularly when you take pains in meeting the exact requirements of the customer. New uses and new fields are opening up continually."

### General News of the Trade

The Charles Back Company largely has increased its stock and announces very active sales on the new Certificate Letter water marked paper made by the Crocker-McElwain Company, Holyoke, Mass., as something different in the line of an exquisite paper for the printer, engraver and lithographer and as a companion paper to the well known Certificate Bond, selling at the same price. It is stocked by the Beck Company, in 17x22, substance 20 and 24, and in 22x34, same substance.

Secretary William A. Hentz, of the D. L. Ward Company, from mid week until the end of last week, conducted a party of the firm's customers on an inspection trip of the Cumberland mill of the S. D. Warren Paper Company. H. J. Brandt of the Ward Company accompanied him. Others in the party were Clayton Stilz of the Niles Press, Robert Hesse of the Frank D. Jacobs Company, Wesley Gibson, of New York; B. F. Emery of Emery & Son, H. C. Buche, of Honey Brook, Pa., and E. M. Jenkins of the Leader Press.

Samuel S. Alcorn, who for half a decade has been established in the paper brokerage business and whose recent headquarters were located in room 200, Victory Building, 1001 Chestnut street, has removed to larger and more attractive offices on the fifth floor of the Victory Floor, having taken the suite No. 509, from which he will conduct his business in the general line of coarse and fine apers.

There recently was installed a waxing department in the Keystone Paper Mills at Upper Darby, for the purpose of waxing the line of Krafts and Manilas manufactured by the Keystone mills. The waxing department is a new departure for the firm's business. Heretofore the firm engaged exclusively in the making of Krafts and Manila.

Vice-President and General Manager Morgan H. Thomas, of the Garrett-Buchannan Company is confined to his home suffering from tonsilitis. Credit Manager Winfred Predmore, of Riegel & Company is building a new home for himself at Collingswood, N. J.

A well defined rumor is in circulation that capital in a considerable amount is being gathered together in this city for a rather novel undertaking. The reclamation of the cotton and linen fabric of used automobile tires for the manufacture of a high grade of paper and of course the recovery of the rubber incidentally. It is understood that a large plant close to Philadelphia is shortly to be equipped for the purposes of carrying out this proposition.

Due to the recent installation of electric drives throughout the plant of the Edwin T. Garrett Company, of Lansdowne, known for more than half a century as the "Darby Paper Mills," production has been increased about 40 per cent. The high grade tissues produced by this mill have an enviable reputation and the capable conduct of the company's affairs by Harvey Garrett, son of the founder Edwin T. Garrett, has brought about a steady healthy development of the business of this mill, so that it now occupies foremost rank in its class of high grade wrapping tissue products.

Edwin Garrett and son, of Chester, proprietors of the paper mill at Granogue, Del., which was founded almost a hundred years ago and operated for many years by Francis Tempest, have just completed a new concrete dam and other extensive improvements, including the installation of new beaters, &c., so that they are now equipped to produce Rope Manila Tissue of unique merit.

XUM

## Next Monday

# MERRY XMAS

MERRY Christmas and a hearty, old-fashioned Happy New Year. Our sincerest good wishes for your success and prosperity throughout 1923 and all the years to come.

*James Lawrence, President*

**The Lawrence Bag Company**

**Miamisburg, Ohio**

# LAWRENCE GROCERS' BAGS

# STANDARD BASIS OF COLLECTING CONVERSION COSTS

By T. J. Burke, Secretary-Treasurer of the Cost Association of the Paper Industry.

T. J. Burke, secretary-treasurer of the Cost Association of the Paper Industry has prepared the following memorandum regarding the plan suggested by the cost association for the collection of conversion costs on a standard basis:

### What Is Meant by Conversion Costs

"By conversion costs is meant costs relating to the actual 'converting' of the raw materials into the finished products exclusive of the cost of these raw materials, which it is suggested should be included at a fixed cost. The mere use of the word 'fixed' is liable to lead to misconstruction, but it should be understood that our reason for not wishing to have the raw materials put in at cost is that we are not, at any rate at this time, endeavoring to improve the purchasing ability of the different mills. Our sole object, on the contrary, is to assist them in improving their manufacturing efficiency. Hence our reason for suggesting that all raw materials (and by raw materials is meant those fibrous materials which are actually used in the making of the paper) shall be included at the same price by all the mills submitting these costs to the Association.

"In order that 'conversion costs' may be collected on a basis which will permit the Association to make proper comparisons, it is necessary of course that the mills estimate on the same quantity of the same paper. In view of the fact that so many mills have slight differences in the grade, weight, etc. of their products, our problem has been to find some basis which would be acceptable to the different groups.

### Public Printer's Specifications Suggested

"Mr. Reilly's suggestion is that we shall for this purpose use the specifications rated in the proposals for furnishing paper for the Public Printing and Binding as drawn up by the Joint Committee on Printing appointed by the U. S. Government. It is, of course, not absolutely necessary that we should use these specifications, but inasmuch as they are very definite and complete they certainly furnish a very satisfactory basis in those cases where the kind of paper specified is one which could be very generally manufactured by any one group of manufacturers in the industry.

"At the conclusion of our meeting on this subject in Holyoke, I was instructed to draw up, in collaboration with the secretaries of the various trade associations affiliated with the American Paper and Pulp Association, specifications which would furnish a standard basis for the collection of these conversion costs and would at the same time interest the largest possible number of mills in the group. If the secretaries of any of the affiliated association find that there are not any specifications given in the Committee's proposals which would be of general interest to their group of mills, they are quite at liberty to suggest specifications and the quantity which they would recommend should be used for the purpose stated. The quantity and specifications, however, should be as carefully stated as in the Government proposals.

"The Cost Association would be glad to have counsels' opinion as to whether there is any objection to the listing of these conversion costs when collected under key numbers, thereby permitting those mills submitting their costs to know the names of each mill on the list. Since this is the method which has been used by the News Print Service Bureau for some years past, we believe it is quite legal, their counsel having passed favorably on the procedure.

### Price Fixing Avoided

In conclusion, it cannot be emphasized too strongly that it will be absolutely impossible for any of the mills to make use of these conversion costs for the purpose of fixing prices because, firstly, the differences between the costs of raw materials will not be shown; secondly, selling and distributing expenses will not be shown; and thirdly, percentage of profit will not be shown.

As stated before, the figures collected will relate solely to the cost of converting the raw materials into the finished product f.o.b. mill and comparisons will be made as between mills, in order to enable them to ascertain whether their costs are high, and thus assist them in their efforts to improve their manufacturing efficiency.

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## Belt Conveyors and Belt Elevators

The new book of the above title, written by Frederic V. Hetzel, Member of the American Society of Mechanical Engineers and the Franklin Institute of Pennsylvania, and published by John Wiley & Sons, Inc., of New York, was compiled especially for four classes of people:

1—Men who have material to handle and who want to know more of the "how" and "why" of conveying and elevating machinery than can be told in the catalogs and advertisements of manufacturers.

2—Consulting engineers who have to advise in the selection of the proper machinery to do certain work.

3—Engineers and draftsmen who design conveying and elevating machinery.

4—Students in technical schools and colleges.

The author's treatment of the subject is clear, thorough and practical, explaining principles and the reasons for doing things, as the result of 30 years' experience at the drafting board, in the shop, and in the field supervising the erection and operation of conveying and elevating machinery.

This volume consists of 333 pages interspersed with 291 illustrations and is bound in cloth. The price is $5.00, post paid.

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## Mr. Backus Enters Libel Suit

E. W. Backus, of the Fort Frances Pulp and Paper Company, Fort Frances, Ont., is the plaintiff in a libel suit for $100,000 damage against the publishers of the *Toronto Telegram*, in connection with the granting of the English river pulp wood concession to Mr. Backus by the Ontario Government last year. The case has been going on for several days. Among the witnesses called was F. H. Anson, of Montreal, president of the Abitibi Power and Paper Company. He said that his company had not tendered on the English river limit because it had not enough wood for his purpose on the occasion of the sale to Mr. Backus. In 1915 the company of Mr. Anson had bid on the English river limit but the bid had been refused. A cruise preceded the tender. The purpose of the Abitibi Company had been to establish a western pulp and paper mill. Mr. Anson added that, for the development contemplated by him, the mills were to be located on the English river and a railway, fifty miles long, which would have to be built to get the material in and the products out. Insufficiency of wood and consequent inability to put up the size of mill required, had alone prevented him from tendering on the last occasion.

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## J. H. Eilers Goes With Uncas Paper Board Co.

Norwich, Conn., December 19, 1922.—J. H. Eilers, mill manager of the New Haven Pulp and Board Company, New Haven, has resigned that position to accept a similar one with the Uncas Paper Board Company. This is the plant of the Ironsides Board Corporation which was bought several weeks ago by J. E. Smith when the affairs of that concern were wound up.

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# TWO-ROLL BEATER*

The beating engine covered by this patent consists of two troughs separated from each other by the backfalls back of the rolls $D$ and $D^1$, equipped with suitable devices (or lighter-bars) for raising or lowering the rolls. The roll shafts are placed at right angles to the direction in which they are placed in the ordinary beaters.

The rolls are placed in the ends of the trough instead of in the straight portion as is usually done, this arrangement having the

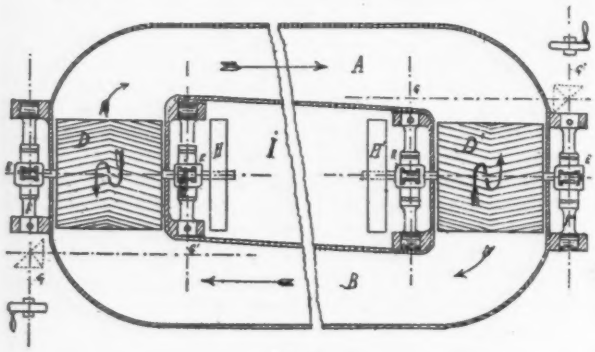


FIG. 1.

advantage of preventing the stopping or slowing down of the stock when it comes to the curved portion of the trough.

Behind the backfall the trough gradually widens until it comes to the next roll. As the stock circulates in the trough the section of the trough increases causing the height of the stock to decrease and consequently its speed to increase until it reaches the roll which takes it up and throws it over the backfall when the same thing happens again.

With this type of beater the consistency of the stock can be considerably increased, and owing to the high velocity with which the stock is circulated the output is greatly increased without sacrificing the quality of the work.

The operation is quite easy, as the beater is readily accessible from all sides, and quite safe as the driving pulleys are placed in

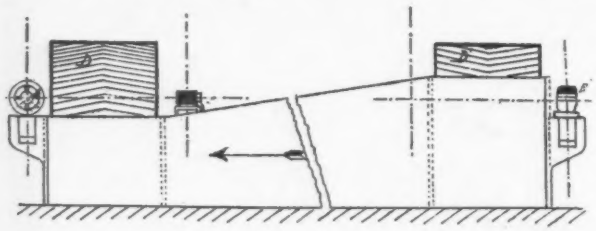

FIG. 2.

the space left between the troughs. It can be very quickly furnished and dumped, as these operations are carried on simultaneously on both sides and are therefore twice as rapid as in an ordinary beater.

*French patent No. 514,865, delivered to J. E. Brotel, Nov. 19, 1920. Translated from *Le Papier* xxiv, No. 5, p. 211, May, 1921, by A. Papineau-Couture.

## Talc and Soapstone in Canada

A report just published by the Mines Branch, Department of Mines, under the above title, deals with the talc and soapstone resources of Canada. The author is Hugh S. Spence, and the report comprises 80 pages of text, 17 illustrations and a map showing the distribution of the known talc and soapstone occurrences in the Eastern Townships of Quebec.

The report contains four chapters: Chapter 1 including tables of analyses of talcs and soapstones, notes on the distribution of the Canadian deposits, and a statistical section. Chapter 2 is devoted to detailed descriptions of Canadian talc and soapstone mines and occurrences; while Chapter 3 deals with the uses, mining and preparation for the market of talc and soapstone. Chapter 4 contains

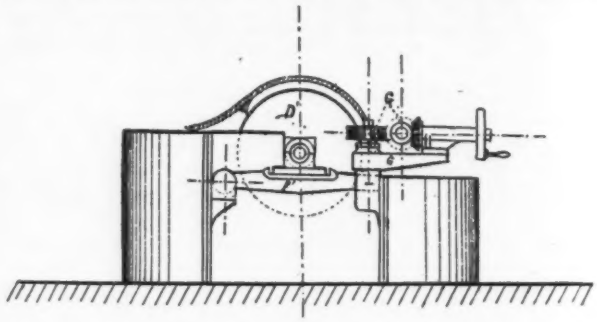

FIG. 3.

brief notes on talc in foreign countries. A bibliography of the more important literature dealing with talc and soapstone is appended.

From this report, it appears that while talc is known to occur in Nova Scotia, Quebec, British Columbia and Ontario, the last named province is the only one that has figured at all prominently as a producer.

The Nova Scotia occurrences are small and are not regarded as of economic importance. Quebec undoubtedly possesses important talc deposits, most of them yielding an off-color grade of ground talc, which, however, has good slip and should be of value for the paper, roofing and foundry trades. A similar grade of talc

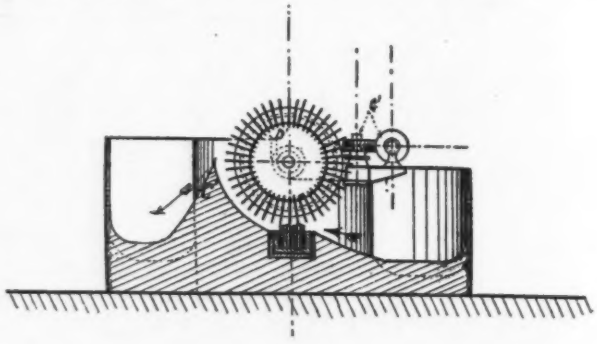

FIG. 4.

is produced at several localities in British Columbia; and there is, also, in this province a deposite of cream colored steatite, or massive talc, that shows some promise, and that may, with the improved transportation facilities afforded by the Castle-Windermere highway, prove capable of development.

The principal talc mines of the Dominion lie in the vicinity of Madoc, north of Belleville, in Hastings County, Ontario. The Gillespie mill at Madoc station has been in operation for the past sixteen years, and produces a superfine, white talc that is much in demand by the talcum powder, textile, paper and soap trades.

According to the statistics of production given the production of talc in Canada in 1920 amounted to 21,000 tons, valued at $167,000, virtually the whole of this quantity was derived from the Madoc area, Ontario.

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# "CO-OPERATION AND COSTS"

By C. A. Jasperson, Pres., Cost Association of the Paper Industry

C. A. Jasperson, secretary of the Nekoosa-Edwards Paper Company of Port Edwards, Wis., newly elected president of the Cost Association of the Paper Industry, gives his inaugural message to the cost men of the industry in the current month's issue of *The Paper and Pulp Industry*, the bulletin of the American Paper and Pulp Association, to its members. His message is given as follows:

As the incoming president of the Cost Association of the Paper Industry, I wish to direct my first message primarily to the chief executive or manager, and try to impress upon him the importance of becoming a member of this association, if he is not already a member, why his membership is necessary and what we hope to accomplish.

### Should Use the Broad Viewpoint

The question has often been asked, "What do I get out of the association?" When an executive asks this question, I cannot help but feel he is looking at this important association work from a narrow viewpoint; either he does not understand or does not sense the ultimate results which are sure to be accomplished.

For the past twenty years the company with which I am connected has been interested in getting a system perfected which would not only show the total cost to make the various kinds of paper, but the cost per ton of each kind of paper made. I have spent a great deal of time and money visiting other mills, comparing systems affecting costs. Because the mills I visited had cost systems, I was under the impression most mills were more or less informed as to their costs.

Four or five years ago I became interested in cost association work and soon learned I was mistaken in assuming all mills had at least the semblance of a cost system. When I found how small a number of the mills had an idea of what it cost them to make a particular kind of paper as it ran over their machines, I determined to give what time I could toward helping mills know their costs.

### American Manufacturer Is Good Loser

I believe the American manufacturer is what we term a good loser. When bids are asked on a particular kind of paper and a manufacturer secures the order, his competitors take it for granted he has taken the order on a basis which will net him a reasonable profit. They can do nothing but sing his praises and assume he has secured the business on a legitimate cost basis. However, when it is later learned he had no idea of what it was going to cost to make that paper and he had taken the business on the assumption, "If the other fellow can make it for that, so can I," then it is that the "Milk of human kindness sours within our bosom." It is the purpose of the Cost Association to do what it can to teach the uninformed how to arrive at true costs and bid intelligently.

### Why Cost Work Should Be Supported

We have members in our association who have good cost systems and because they feel that cost association work does not particularly interest them, think very little can be gained by sending representatives to attend conventions. Such mills are to be congratulated in having accountants who can perfect satisfactory cost systems. However, I wish to urge upon these mills the necessity for their continued support in the Cost Association work; the manufacturer who does not know his costs needs a campaign of education, as he is a constant source of annoyance because of the quotations he makes. We need the intelligence co-operation of every person engaged in this highly important work. The enthusiasm and interest in cost work and its direct bearing on the efficiency and prosperity of the paper industry as a whole, can best be obtained through such an organization as is now functioning. I am asking the aid of those leaders in cost work to attend our conventions, that we may all learn from one another.

### Support Needed from Mills

I cannot put too much stress on the importance of getting support from the mill with a cost system, and the mill without a cost system, as it is only with proper financial backing that our organization will be able to send out accountants in an advisory capacity to give such help as is necessary to get mills lined up with good cost systems. This should prove constructive, as it will have a tendency to eliminate destructive quotations. Unintelligent bidding is apt to be disastrous for mills that are not equipped with good cost systems.

The president and the executive committee of this association without expectation of reward are giving their time and money toward developing this most important phase of the paper industry. The ultimate goal is to teach true costs, thus eliminating unintelligent competition.

### Cost Work on a Higher Plane

We are coming to realize that this program cannot be accomplished in a year or two, hence we need the continued support of all the mills in the paper industry. My personal plea is that we place the cost work on a higher plane than it has ever been before; to do this we must retain the mills that are now members and we need to urge the real advantages of our association upon those mills that are not now affiliated with us.

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## Sulphate Mill Bi-Products

B. T. McBain, Director of Mfg., Nekoosa-Edwards Paper Co.

Waste to be used! Where a ton of pulp is made, almost two tons of waste results in the sulphate pulp business, when gross weight of wood and sludge waste are considered as against net weight of pulp produced.

Five sulphate mill operator of the States of Minnesota and Wisconsin have formed an association for research work to the end that all valuable material in what is now waste from their plants be reclaimed in the form of bi-products and markets found for same.

Arrangements have about been completed with one of the foremost chemical engineers of the United States to superintend this research work, and while no definite plan has yet been outlined, suffice it to say that the men behind the idea are among the leading paper and pulp manufacturers of the States named, and if it is in the cards, the game will be won. This is another place where co-operation between the technical man and the practical man can do much for the paper and pulp industry as a whole.

There are many chemicals known to be possible of saving, yet to put it as one chemical engineer spoke his mind, "I think sulphite pulp just happened. I don't think anyone ever worked it out scientifically.

I believe there is much to be learned, and believe there are greater possibilities in the bi-products than in the pulp itself, like in the bi-products of the packing industry."

This is another move to save waste. When all the waste in the industry is saved, or arrangements to that end perfected, I will start harping on another tune.

The mills so far interested are: Minnesota and Ontario Paper Company, International Falls, Minn.; Marinette and Menominee Paper Company, Oconto Falls, Wis.; Wausau Sulphate Fiber Co., Mosinee, Wis.; John Strange Paper Company, McDill, Wis.; Nekoosa-Edwards Paper Company, Nekoosa, Wis.

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# Recent Incorporations

National Consumers Paper Corporation, Manhattan, New York. Manufacture paper. Capital, $200,000. Incorporator: H. Kushel, 7020 Bay Parkway, Brooklyn.

Newman-Kohn Paper Company, New Jersey, capital $100,000. To manufacture paper bags and handle paper. Incorporators: Albert Newman, Leon A. Kohn, Sylvan H. Kohn.

L. E. Stewart & Co., Albany, New York. Make paper. Capital, $10,000. Incorporators: L. E. and L. M. Stewart, R. C. Postanzer. Attorneys, Muhlfelder & Illch, Albany, N. Y.

Adhesive Paper Products Corporation, San Francisco, California. Capital, $100,000.

Friedlander Paper Company, Manhattan, New York. Capital, $30,000. Incorporators: B. and L. and S. Friedman. Attorneys, Speiser & Speiser, 170 Broadway.

Transo Envelope Company, Wilmington, Delaware, manufacture. Capital, $500,000. Corporation Trust Company of America.

Keys Manufacturing Company, Manhattan, New York. Lumber and pulp. Capital, $100,000. Incorporators: A. V. Fox, J. Nevin, Jr., M. C. Nielson. Attorneys, Griggs, Baldwin & Baldwin, 27 Pine street, New York.

Tanenbaum Stationery, Manhattan, New York. Capital, $20,000. Incorporators: J. Tanenbaum, W. Roseman, B. Kalvinsky. Attorney, A. Rosenthal, 1476 Broadway.

U. S. Tape-O-Graph Sales Company of New York, Manhattan, New York. Make paper wrapping machines. Capital, $10,000. Incorporators: N. and M. Schapiro, R. Decker. Attorney, B. S. Deutsch, 261 Broadway.

American Core-Twine Corporation, Boston, Massachusetts; paper and twine. Capital, $15,000. Incorporators: Roger P. Tobey and George W. Peck of Boston and Emily M. Bresnan of Malden.

Fort Lee Paper Products Corporation, Manhattan, New York. Capital, $25,000. Incorporators: P. Pesetzky, W. Moloshok, T. Galante. Attorney, B. Bernstein, 299 Broadway.

Algonquin Paper Corporation, Ogdensburg, New York, 5,000 shares preferred stock, $100 each; 15,000 common, no par value active capital, $575,000. Incorporators: G. M. McKee, F. A. Augsbury, E. L. Strong. Attorney, E. Fitzgerald, Ogdensburg.

Carpenters Stationery Stores, Wilmington, Delaware. Stationery. Capital, $1,000,000. Corporation Trust Company of America.

## Against Wage Increase in Holyoke

Holyoke, Mass., December 18, 1922.—The Allied Paper Trades Council met last week and received from Adam Wilkinson in behalf of the paper manufacturers a statement relative to the increase in wages asked by the union. The statement was to the effect that, owing to the business conditions, they could not at this time grant an increase in wages. The several trades represented at the conference, were inclined to favor an attempt to have another conference. The council as a whole did not take any action, but left it to a committee to take whatever action was thought advisable. By-laws were adopted and arrangements made for the semi-annual election to be held the 31st.

Eagle lodge of papermakers expressed their dissatisfaction with the refusal of the manufacturers to grant the increase in wages, by voting to instruct their delegates to the Allied Paper Trades Council to demand that the manufacturers grant another conference on the wage situation.

These officers were elected: President, George Astley; vice-president, Lawrence Kirley; financial secretary, George Welch; recording secretary, Thomas Dowd; treasurer, Michael McLean; grievance committee, George Astley, Lawrence Kirley, George Welch, Albert F. Norris and George Stalker.

# Obituary

## Alexander Buntin

Toronto, Ont., December 18, 1922.—Alexander Buntin passed away at his home on Elm avenue, on Monday of last week in his fifty-eighth year as a result of a stroke, which befell him on Friday last. He was one of the most widely known paper jobbers in Canada and was head of the Buntin, Reid Company.

The late Mr. Buntin was born in Montreal and spent several years in the mercantile marine service. He then learned the art of paper making and was at one time proprietor of the Valleyfield paper Mills at Valleyfield, Que. He succeeded his father as manager of the Buntin Reid Company, Toronto, in 1893, and a year later became sole proprietor of the business. The firm specializes in book, writing and ledger papers and has extensive connections. The death of Mr. Buntin has cast a deep gloom over the paper industry for he was a man as strong and unflinching as the oaken decks on which he spent the early days of his manhood.

## Heavy Demand for Wrapping in Chicago

[FROM OUR REGULAR CORRESPONDENT.]

Chicago, Dec. 18, 1922.—The one shining light of the present paper market in the Chicago territory is the day to day urgent demand from the holiday trade for wrapping papers, small paper boxes and other coarse papers. Retail stores in Chicago report a tremendous pre-Christmas business with records broken each day. It is anticipated that Christmas purchases this year will exceed every record heretofore made in Chicago territory. The stores in anticipation of their usual business placed their orders for wrapping paper early, but had no idea that the buying power of the public was as great as it seems to be. Consequently, they under-estimated their wrapping paper requirements and are now buying for present use. The market in fine papers and ledgers is a little brighter, large buyers having entered the market in the last ten days. A few large orders have been placed and it is believed that shortly after the first of the year this branch of the industry will be enjoying a healthy business.

Book papers remain quiet. Printers and other buyers are not in the market except for their immediate needs. Many of them will commence taking inventory next week and paper manufacturers and wholesalers do not anticipate orders of any consequence from this source until after the holiday season.

Coated papers are moving a little more freely as a result of the publicity given to the fact that the visible supply of casein is practically exhausted.

## Lacey Engineering Parties in South

Two forest engineering parties from the New York office of James D. Lacey & Co., have recently started important field work in the South. One party of twenty men is making an intensive forest survey of 127 square miles in Louisiana in advance of proposed manufacturing operations for which the timber estimates and type map will be the basis. S. J. Hall is spending the week of December 10, with the Louisiana party.

Another party is making a careful cruise of a smaller tract in South Carolina in connection with the acquirement of stumpage for an existing mill operation. Several preliminary examinations have also been made recently along the Atlantic seaboard and a reconnaissance of pulpwood resources in the central gulf region was completed a short time ago.

In addition to the actual and prospective improvement in business conditions reported practically throughout the South, there is a rapidly growing recognition of the re-growth possibilities on cut-over lands, and the future timber supplies of several companies are likely to be grown as crops under careful forest management.

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CYLINDER MOULDS
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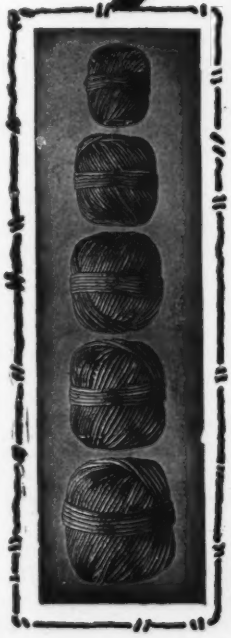

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## CORDAGE

# Trade Marks Department

CONDUCTED BY NATIONAL TRADE-MARK CO., WASHINGTON, D. C.

The following are trade-mark applications pertinent to paper and pulp field pending in the United States Patent Office which have been passed for publication and are in the line for early registration unless opposition is filed promptly. For further information address National Trade-Mark Company, Barrister building, Washington, D. C., or Bush building, 130 West Forty-second street, New York, trade-mark specialists.

As an additional service feature to its readers, the PAPER TRADE JOURNAL gladly offers to them an advance search free of charge, on any mark they may contemplate adopting or registering.

SANIKEEP—No. 170,254. Nashua Gummed and Coated Paper Company, Nashua, N. H. For paper wrappers for fruit.

WHITE DUCK—No. 170,140. Inlander-Steindler Paper Company, Chicago. For wrapping paper.

VEL VTEX—No. 168,700. White-Washburne Company, Inc., Hinsdale, N. H. For toilet paper, paper napkins and paper towels.

10—To—1—No. 166,709. Oswego River Paper Mills, Phoenix, N. Y. For toilet papers.

WALL PAPER, The Finishing Touch; on picture of piece of wall paper. No. 162,449. Martin Rosenberger, Cincinnati, Ohio. For wall paper.

CORUSCAN—No. 169,222. The Paper Mills' Company, Chicago, For book paper, printing paper, bristol board, and post card bristol board.

KARA—No. 170,568. Eaton, Crane & Pike Company, Pittsfield, Mass. For writing paper, envelopes, etc.

THE WARREN MANUFACTURING COMPANY and picture. No. 159,672. The Warren Manufacturing Company, N. Y. C. For jute tag paper, envelope paper, bristol board, cover paper, etc.

INDIAN—No. 168,310. Hampton Roads Paper Company, Norfolk, Va. For wrapping paper.

INDIAN HEAD Picture. No. 170,005. The Chillicothe Paper Company, Chillicothe, Ohio. For writing paper, bond.

ST. MAURICE—No. 164,723. St. Maurice Paper Company, Limited, Montreal, Quebec, Canada. For news print paper.

A F C O, Rochester, N. Y.—No. 168,664. Alderman, Fairchild Company, Rochester, N. Y. For paper and pasteboard boxes.

## Canadian Embargo Handicaps U. S. Production

WASHINGTON, D. C., December 19, 1922.—The embargo declared by the Canadian Government on pulpwood exports from crown lands is likely to be extended to all forest lands in the Dominion, says Chief Forester William B. Greeley in the annual report of the Forest Service, United States Department of Agriculture, just issued.

Should this be done, he adds, raw wood from Canada will be completely shut off as a source of supply for the paper industry of the United States. The paper mills of this country now draw one-third of their requirements from Canada and Northeastern mills have already been seriously handicapped by the present embargo.

This illustrates, the report continues, the hazard of becoming dependent upon foreign supplies. The rapid increase in lumber shipments through the Panama Canal foreshadows the time, in the near future, when the principal source of softwood lumber for the entire nation will have shifted to the West coast and the average freight cost paid by the home builder or manufacturer will have advanced to a new and higher level.

When the coniferous virgin timber of the far West is exhausted in its turn, if the principal source of supply shifts to Siberia or South America, the transportation conditions which control the present lumber market will become different only in degree. Further, as the sources of supply become more restricted and opportunities for competition are lessened; and temporary shortage due to bad seasons, labor troubles, or congestion of transportation facilities are more probable and more severe. Thus the conditions of the trade become more favorable to monopolistic control, to violent market fluctuations, and to high prices. And we are dealing with a basic raw material, as widely used and as necessary to national existence as coal.

## Scandinavian Paper Markets

Reports from the Swedish paper market tend to show that the situation is improving. This is especially true of the news print and kraft paper mills, which have work insuring operation well into the new year, according to advices to the Department of Commerce from Assistant Trade Commissioner H. Sorenson.

There has been a noticeable slump in the sales of sulphite pulp of late. America remains the principal purchaser of pulp, and it is announced that shipments to the United States so far this year have reached a figure of 25,000 tons for bleached and 200,000 tons for unbleached sulphite pulp.

The long-expected improvement in the mechanical-pulp sales has finally manifested itself, and 65 crowns (about $17.50) per ton, f.o.b., for wet pulp has been obtained for available lots for shipment before the closing of the shipping season in the Gulf of Bothnia.

With the exception of kraft, the paper market in Norway is at present quite dull, Consull General A. G. Snyder reports. Kraft paper has been purchased by the United States and Great Britain in considerable quantities lately. Great Britain has for the time being taken a reserved attitude in regard to purchases of paper. Competition from Germany and Finland continues to be felt, especially in the South American markets, where prices have been forced to unreasonably low figures.

With the exception of Japan, the Far East has recently purchased large quantities of thin printing paper and M. G. cap. The fact that Japan assumes an independent position with respect to Norwegian paper is due doubtless to increased domestic production and possibly to low freight rates secured on the Pacific by Norway's competitors.

## Arthur Baker of Empire Mills in New York

Arthur Baker, of the Empire Paper Mills, Ltd., Kent, England, well known manufacturers of news print, who has been visiting some of the representative paper and pulp mills in this country and Canada, together with a few invited guests in the paper industry, were entertained at luncheon Friday of last week at the Canadian Club by W. G. MacNaughton, secretary of the Technical Association of the Pulp and Paper Industry. Mr. Baker who is a former president of the Technical Section of the Paper Makers Association of Great Britain and Ireland, and naturally a keen observer here of anything new in the manufacture of paper and pulp, expressed himself as having been greatly impressed with the efficiency of the newer Canadian mills. Among other matters he expressed himself as having been especially interested in the generation of steam by the direct application of electricity to water, the use of pulp direct from the grinder to the paper machine and the operation of Fourdriniers at the rate of about 1,000 feet per minute. The average rate in England being only about 650 feet per minute.

Friday afternoon Mr. Baker visited the news print plant of the Tidewater Paper Mills Sales Corporation, Brooklyn, as the guest of Arthur F. Allen, manager of manufacturing.

## J. & J. Rogers Co. Power Plant Burned

AUSABLE FORKS, N. Y., December 18, 1922.—The power plant of J. & J. Rogers Company, manufacturers of bleached manila and sulphite papers and bleached and unbleached sulphite pulp, was destroyed by fire Friday, December 8.

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Agents
SUNDS AKTIEBOLAG
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Agents
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Dealers in All Grades of Paper

SPECIALISTS IN

BOOK PAPER, GLASSINE and EMBOSSED GLASSINE PAPERS

Exclusive Distributors for

**WESTFIELD RIVER PAPER COMPANY**
**RUSSELL, MASS.**

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## Government Bids and Awards for Paper

[FROM OUR REGULAR CORRESPONDENT.]

WASHINGTON, D. C., Dec. 20, 1922.—The purchasing officer of the Government Printing Office has received the following bids:

750 lbs. 17 x 22—10, white French folio paper: Mathers-Lamm Paper Company, $.125 per lb.; Dobler & Mudge, $.135; The Whitaker Paper Company, $.125; J. E. Linde Paper Company, $.16, and R. P. Andrews Paper Co., $.13.

3,900 lbs. 22 x 34—26 No. 13 green high M. F. writing paper: R. P. Andrews Paper Company, at $.129 per lb.; Dobler & Mudge, $.21, and Old Dominion Paper Company, $.1049.

12,000 lbs. 25 x 38—35 M. F. printing paper in 48-in. rolls: Bryant Paper Company, $.0719 per lb.; Old Dominion Paper Company, $.07189; The Champion Fibre Company, $.0775.

50,000 lbs. 25 x 30—No. 2 binder's board: Ingalls & Co., $68.00 per ton; C. B. Hewitt & Bros., Inc., $67.50; R. P. Andrews Paper Company, $71.00; Dobler & Mudge, $74.00; Mathers-Lamm Paper Company, $84.90; Republic Bag and Paper Company, $73.00; The Whitaker Paper Company, $69.00; Denison-Pratt Paper Company, $68.00; Kerr Paper Mill Company, $80.00; Wilkinson Bros. & Co., $72.50.

17,500 lbs. 20½x29 white antique printing paper; R. P. Andrews Paper Company, $.14 per lb.; Mathers-Lamm Paper Company, $.1468; The Whitaker Paper Company, $.1343.

The purchasing officer of the Government Printing Office will open bids on December 26 for 2,000,000 lbs. of U. S. postal card cream bristol board, in 44½-in. rolls.

The purchasing officer of the Government Printing Office will open bids on December 26 for 2,637 pounds (approximately 75 reams) of safety writing paper, M. F.

The Bureau of Supplies and Accounts, Navy Department, will open bids on January 9 for 35,000 rolls of toilet paper.

The Bryant Paper Company has been awarded the contract by the purchasing officer of the Government Printing Office for furnishing 400,000 lbs. of white M. F. printing paper in 38-in. rolls, at $.0694 per lb.

The Old Dominion Paper Company will furnish 36,000 lbs. of No. 13, high M. F. white writing paper in 21-in. rolls, at $.0839 per lb., and the R. P. Andrews Paper Company will furnish 4,375 lbs. of 21 x 32½—87½ No. 28, salmon commercial ledger paper at 19 cents per lb. and also 4,000 lbs. of 21 x 32½—109½ lbs. commercial ledger paper at 19 cents per lb.

## Waste Merchants Association Meets

The annual meeting of the Waste Merchants' Association, of New York, was held at Andre's Restaurant on Wednesday evening, December 13.

The following officers were elected for the ensuing year: President, A. J. Moran, of E. B. Thomas & Co.; Vice-President, Walter Clark, of Maurice O'Meara Company; Secretary, F. H. Chase, of Chase & Norton; Treasurer, Walter Hicks, of D. I. Hicks, Inc.

The executive board for the ensuing year will consist of: Louis F. Domstadt, Domstadt Scott & Courtney; George Carrizzo, George Carrizzo & Co.; Harry Rosenberg, American Wood Pulp Corporation; D. Palmieri, Box Board & Lining Company; A. Constarino, Hicks, Constarino & Co.

The annual banquet of the Association will be held at the Hotel Commodore, New York, on Wednesday evening, April 11. It will be in charge of the following committee: F. H. Chase, of Chase & Norton; E. Solomon, of the American Wood pulp Corporation; W. H. Martens, of Geo. W. Miller & Co., Inc.

The Railroad Committee read a very interesting report, having succeeded in getting a number of embargoes lifted and are now working in conjunction with Traffic Manager H. H. Masman, of the National Association of Waste Material Dealers, to correct a number of difficulties which have arisen between the shippers and the carriers.

## News of the Chicago Trade

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, December 18, 1922.—Reports from the woods in Northern Wisconsin are to the effect that logging operations are to be retarded unless men can be secured for this work. Latest statistics reaching Chicago are to the effect that the operators of Wisconsin and upper Michigan need at least 20,000 men to get out logs this winter for the paper mills and lumber industry. Since the abandonment of work on the hard roads, the supply of men has increased, but there is still a scarcity in some districts.

The Chicago Association of Commerce has an inquiry from a Denver, Colo., firm which is in the market for paper cartons and boxes. Another firm at Dallas, Tex., is in the market for gummed tape.

R. S. Bull, city sales manager of the Bradner-Smith Paper Company, is on a business trip down East.

Announcement is made of the appointment of Daniel A. Stock, as sales manager of the Munising Paper Company, with offices at Chicago.

Weir Brothers, who specialize in wrapping paper and twine, report that orders from the retail department stores are exceptionally heavy for wrapping papers and twine. They are not so large in quantity but quite numerous.

## To Auction Hercules Plant at Moodna

Percival Wilds, receiver for the Hercules Paper Corporation has given notice that he will offer for sale, at public auction, at the premises of the defendant at Moodna, Cornwall-on-Hudson, N. Y., at 12 o'clock noon, January 11, the following described property of the bankrupt corporation:

Over 64 acres of land located at Moodna, Cornwall-on-Hudson, in the town of New Windsor and partly in the town of Cornwall, both in Orange County, State of New York, with improvements thereon, large brick factory buildings, store-house, garage and workmen's dwelling houses, all factory equipment and papermaking machinery and furniture contained therein, together with railroad siding and water power.

The Receiver having received a proposed offer of $50,000 cash for said property, the offerer to pay broker's commissions for negotiating the sale, no other offer will be considered at said sale unless it exceeds the sum of $55,000.

The property may be inspected at any time during business hours and information with reference to same may be obtained from the receiver or Zalkin & Cohen, solicitors for the receivers, 49 Chamber street, New York.

## Eagle-A Service Houses in Twin City District

HOLYOKE, Mass., December 20, 1922.—The American Writing Paper Company announces the appointment of new Eagle-A Service Houses to serve the paper consumers of the Twin City district. They are the Leslie Donahower Company of Ninth and Wacouta streets, St. Paul, and The John Leslie Paper Company, 301 South Fifth street, Minneapolis.

When it was announced about two weeks ago that The Whitaker Paper Company had disposed of its business in the Twin City territory, the printers were quite concerned lest their supply of Eagle-A papers should be interrupted. The American Writing Paper Company was, therefore, quick to answer the numerous anxious inquiries from these printers by appointing in each of the Twin Cities an outstanding paper merchant as an Eagle-A Service House.

Both houses will distribute the complete line of Quality Standard Papers made by the American Writing Paper Co., and thus make accessible to the paper buyers of that vicinity the vast resources of 26 unified mills operating fifty-five paper-making machines, and superintended by a staff of paper experts.

# Bristol Instruments in the Paper Industry

The leading paper and pulp mills of this country have found that by the application of Bristol Recording Instruments to many processes, they have been able to obtain a better and more uniform product with a consequent improvement in plant efficiency. The great advantage of a Bristol Recording Instrument over a small indicating instrument lies in the following two points:

**BRISTOL'S**
**Recording Thermometers**
**Electric Tachometers**
**and Pressure Gauges**

—furnish the operator of any process with an accurate guide as to at just what rate and to what extent the process is taking place.

—furnish a filable record of the varying conditions which enter into the process and as a check in the hands of the management to see that the best operating conditions are maintained.

The fact that one large paper plant has over a thousand of these recorders in actual operation is not at all surprising when a few of the many advantages of these instruments are pointed out.

Bulletin BE-306 illustrates some Bristol Recording Instruments that are especially applicable to the paper and pulp industry. May we send it to you?

*"With Bristol Instruments You KNOW."*

5

**THE BRISTOL COMPANY, Waterbury, Conn.**

*BRANCH OFFICES:*

Boston New York Philadelphia Pittsburgh Detroit Chicago
St. Louis San Francisco

# WOOD PULP

## DIESEN

## BLEACHED SULPHATE

DIESEN

**BLEACHED SUPERIOR QUALITY**

**A STRONG, CLEAN BLEACHED PULP AT A MODERATE PRICE**

*Stock Carried on Docks at Boston and Baltimore.*

# Nilsen, Lyon & Co., Inc.

**140 NASSAU STREET** *Selling Agents* **NEW YORK**


XUM

# New York Trade Jottings

S. Jacobson has recently been placed in charge of the papermaking rag department of Rudolph Wolf, importer of various grades of these rags, of 80 Wall street, New York.

* * *

Samuel T. Bell, Dr. Walter A. Bell and George M. MacWilliam, of the Bell Bag Company, 63 Front street, New York, have recently returned after a six weeks' tour of the British Isles.

* * *

The William C. Jones Envelope Company, 708 Broadway, New York, has increased its capitalization from $10,000 to $100,000, notice having been filed with the Secretary of the State of New York on Monday, December 18.

* * *

Mr. and Mrs. H. Reeve Angel, of London, prominent in newspaper circles, who arrived on the *Aquitania* last week, sailed home Thursday by the *Carmania* after paying hurried visits to publisher friends in Boston, Philadelphia and New York.

* * *

The scheduled hearing of the Republic Bag and Paper Company, of 200 Fifth avenue, New York, before the Customs Division, to have occurred Tuesday of this week, has been adjourned until January 16, according to J. G. Cohen, attorney for the company.

* * *

The Whitaker Paper Company, of 48 Great Jones street, New York, has just issued an attractive sample folder describing its Basic Cover and Basic Text papers. These grades are regularly carried in stock in all Whitaker warehouses in white, India, gray and sky blue.

* * *

A. F. Tenhovaara, of Tammerfors, Finland, representing a large Finnish mill manufacturing tissues, is anxious to communicate with dealers in this commodity. Although he has not yet established a permanent connection in New York, he may be reached at 1462 Lexington avenue, telephone number being Lenox, 9611.

* * *

The American Woodpulp Corporation, of 347 Madison avenue, New York, announces that the connection of Emanuel Salomon with that company was terminated as of December 14, 1922. Officers of the company are now as follows: James Rosenberg, president; L. W. Browmall, vice-president and treasurer, and Kenyon Harris, secretary.

* * *

Louis T. Stevenson, president of the Glassine and Greaseproof Manufacturers' Association, has taken charge of the sales offices of the Mountain Mill Paper Company in its new location room 709 of the New Bowery Savings Bank Building, 110 E. 42nd street, New York. The phone number is Vanderbilt 0433.

* * *

A petition in bankruptcy was filed on Monday of this week against E. R. Mosher Company, Inc., news print dealer, of 51 East 42nd street, New York, by the following three creditors: Lynch Warehouse, $20; United States Trucking Corporation, $200; George H. Mead Company, $4,885. Louis B. Wehl was appointed receiver under bond of $25,000 by Judge Mack. Assets of the concern are estimated at $45,000, while the liabilities are not given.

* * *

The Friedland Paper Co., Inc., wishes to announce that it is now established in its own building occupying seven floors at 121-23 Sullivan street, between Spring and Prince streets, New York, where its large floor space, 50 by 100, and much increased technical facilities will place them in a position to serve their customers even better and more promptly than before as converters of news print and wrapping papers. The main office will be located at 220 Fifth avenue, New York, telephone Madison Square 3207-8-9.

* * *

Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association and former dean of the New York State College of Forestry at Syracuse University, Warren B. Bullock, in charge of the information service of the American Paper and Pulp Association and former director of extension in the same college, together with W. E. Sanderson, for four years director of the summer camp of the New York State College of Forestry, have associated themselves together for the development of outdoor camps and schools. Announcement is made of the opening July 1, 1923, of Camp Mishike (the turtle), a forestry camp for boys from 11 to 17 years of age in the lake region of Northern Wisconsin, under the direction of Mr. Sanderson.

## By-Products of Wood Cellulose

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., December 19, 1922.—The Chief Forester in his annual report to the Secretary of Agriculture to day has the following to say regarding by-products of wood cellulose:

"Substantial improvement in the chemical products and by-products of wood cellulose are dependent upon a much more exhaustive knowledge of its chemistry than now exists. Research during the year established significant facts which have a direct bearing upon the most effective selection of material for chemical by-products. The possible increase in yields under chemical pulp processes from the 40 to 45 per cent now obtained to the theoretically possible yield of 60 per cent without decided loss in the quality of the pulp depends upon a much more exhaustive knowledge of cellulose chemistry.

"Investigations to improve the sulphite process developed a method of analyzing cooking liquor which permits an accurate control of the cooking time and pressure and thereby makes possible the accurate regulation of the cook and the quality of pulp desired. This method is now being tested commercially and should permit a marked improvement in the cooking of sulphite pulp. It has also shown the desirability of using water-saturated chips in the sulphite process—a radical change from the present commercial practice of using air-dried or even kiln-dried chips. Other important progress in pulp and paper investigations includes the completion of comparative pulping tests on approximately 100 commercial American woods; the develoment of methods for the successful grinding of jack pine for container board, which if commercially applicable will have a wide bearing on the value and future utilization of the enormous quantities of lake States jack pine; and further work on a method for deinking of news and magazine stock, which has been partially and will be completely tested on a commercial basis."

## Milton S. Carris Marries Miss Kussy

[FROM OUR REGULAR CORRESPONDENT]

NEWARK, N. J., December 18, 1922.—On December 12 in the Washington Hotel ballroom, Newark, N. J., Milton S. Carris was married to Miss Sylvia Kussy, daughter of Dr. Joseph Kussy, 82 Clinton avenue, Newark. The ceremony was at six o'clock with a wedding dinner and reception immediately following.

Mr. Carris is treasurer of Carris & Watson, Inc., paper dealers at 75 William street, Newark.

The firm of Carris & Watson have been in business two years starting in at 70 William street, but owing to increasing business was obliged to take larger quarters at 75 William street. They carry a complete line of paper, bags and twine.

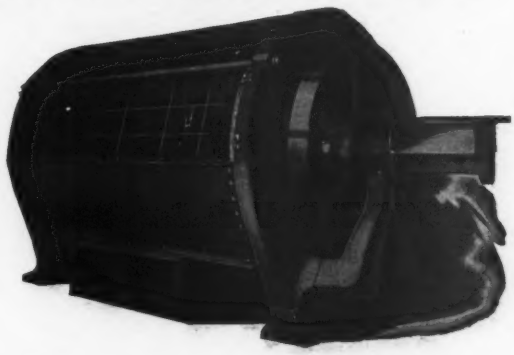
The happy couple left on an extended honeymoon through the South and will be at home after the holidays at 400 Belmont avenue, Newark.

XUM

# "IMPCO" TAILING SCREENER

## FOR SCREENING GROUND WOOD TAILINGS

Very Low Power and Upkeep Expense



Delivers Rejections Free from Good Stock

ANOTHER UNIT OF OUR CLOSED SYSTEM FOR PULP SCREENING

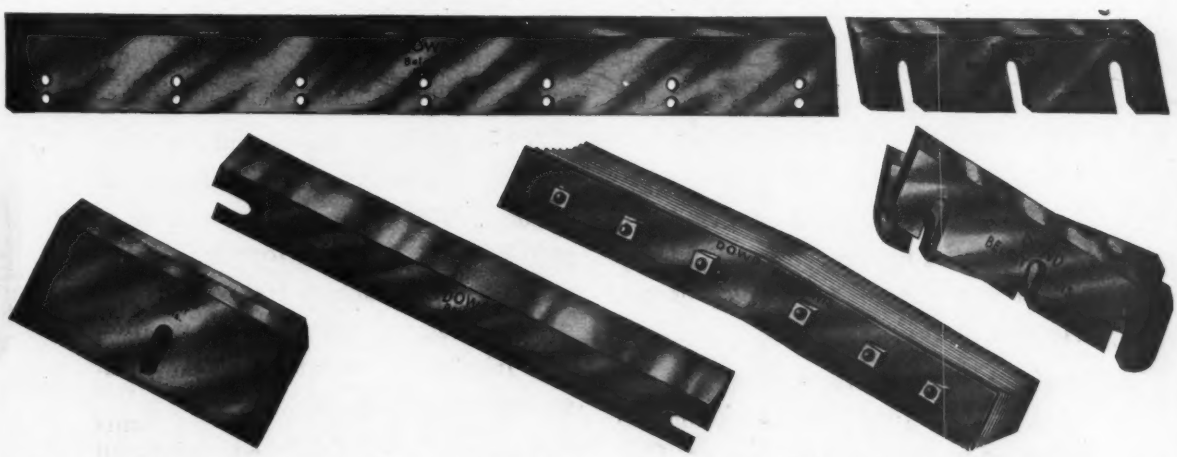
*WRITE FOR FULL DETAILS* *CORRESPONDENCE A PLEASURE*

**IMPROVED PAPER MACHINERY CO.** **Nashua, N. H.**

SHERBROOKE MACHINERY CO., LIMITED, SHERBROOKE, CANADA

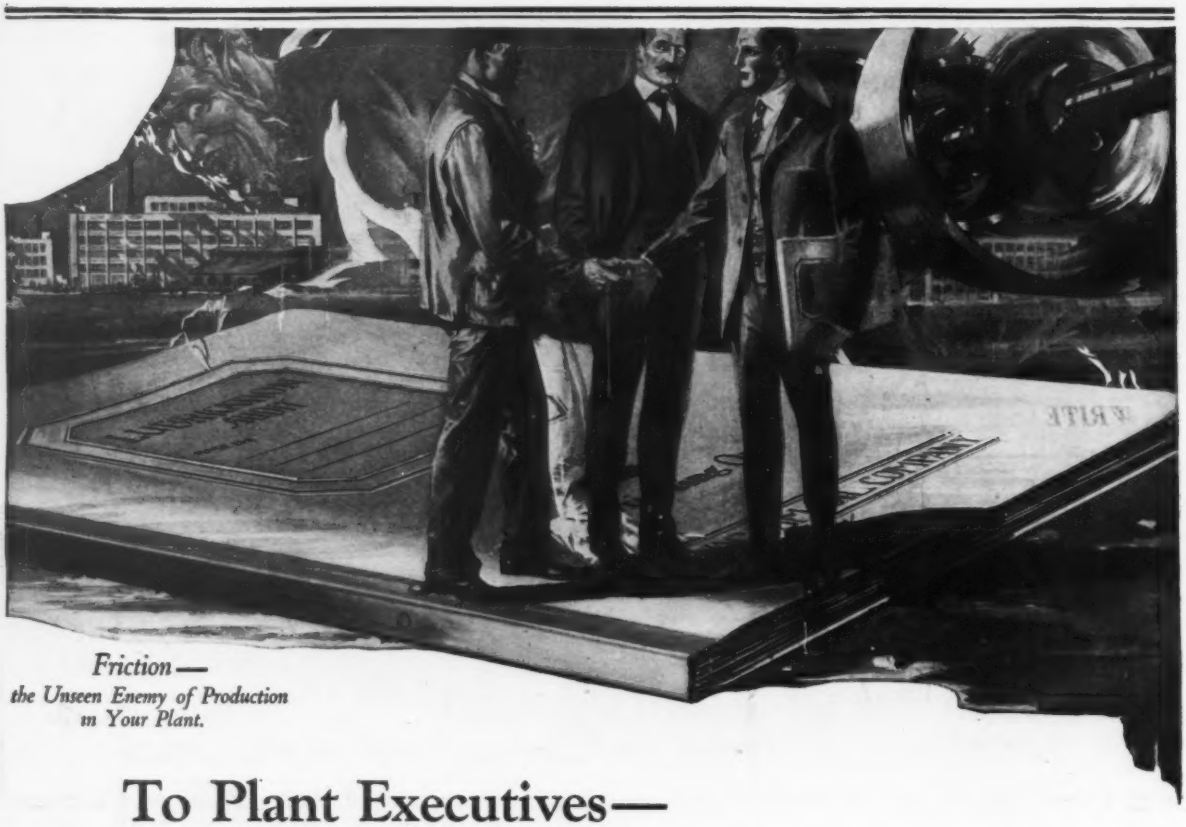
**Do not pay the price of the best and not obtain it**

Roll Bars, Bed Plates, Barker Knives, Chipper Knives,
Rag Knives, Paper Trimming Knives, and Machine Knives
of every description used in paper mills.



Your purchase must be right and you must be pleased. Otherwise the transaction is not in our judgment a success. Let us have your inquiries.

R. J. DOWD KNIFE WORKS Beloit, Wis., U. S. A.



*Friction—*
*the Unseen Enemy of Production in Your Plant.*

# To Plant Executives—
# When your Engineers and our Representatives put their heads together

WHEN one of our representatives comes to your plant, he comes—not as a lubrication theorist, —not as a meddler in your plant,— not as a mere oil salesman.

He comes as a practical man with a practical knowledge of machinery and a specialized knowledge of oil. He comes to co-operate.

Your man contributes his knowledge of operating conditions and lubrication problems in your plant. Our man contributes from the Vacuum Oil Company's wide knowledge of lubrication gained through many years of study and experience all over the world.

Thus, when your man and our man get together, they meet on common ground. They discuss the common problem of Lubrication from the standpoint of such practical matters as coal waste, power losses, preventable friction, overheated bearings, oil waste, repair bills, etc.

The sale of a barrel or so of oil is the last subject brought up.

## VACUUM OIL COMPANY

If you are not already having the benefit of the Vacuum Oil Company service, we shall be glad to make a Lubrication Audit of your plant. See details below.

We are making Lubrication Audits every day in every country in every kind of plant. We make no charge for this co-operative service. Please feel free to call for it at any time. But as "any time" is likely to be "no time"—why not today?

## The Lubrication Audit

**Explained Step by Step in Condensed Outline**

**INSPECTION:** A thoroughly experienced Vacuum Oil Company representative in co-operation with your plant engineer or superintendent makes a careful survey and record of your mechanical equipment and operating conditions.

**RECOMMENDATIONS:** We later specify, in a written report, the correct oil and correct application of the oil for the efficient and economical operation of each engine and machine.

This report is based on:—

(1) The inspection of the machines in your plant.

(2) Your operating conditions.

(3) Our 56 years of lubricating experience with all types of mechanical equipment under all kinds of operating conditions throughout the world.

(4) Our outstanding experience in manufacturing oils for every lubricating need.

**CHECKING:** If, following our recommendations in this audit, you install our oils, periodical calls will be made to check up the continuance of the desired results.

FOR THE ABOVE FREE SERVICE address our nearest branch office.

*Domestic Branches:*

| | | | |
|---|---|---|---|
| New York *(Main Office)* | Boston | Chicago | Philadelphia |
| Detroit | Pittsburgh | Indianapolis | Minneapolis |
| Des Moines | Buffalo | Rochester | Albany |
| | Dallas | Kansas City, Kan. | |

GARGOYLE

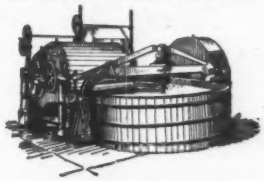
# Lubricating Oils

*A grade for each type of service*

## A Lubrication Audit

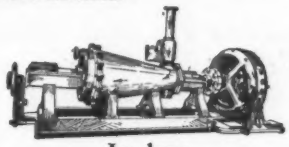
**in the *Paper Industry***

**would point out the Correct Lubrication for the important machines as follows:**



### Beaters

Beater bearings, generally unnecessarily hot, will run cooler if the stock leakage is eliminated and oiling is regularly attended to. The regular use of **Gargoyle D.T.E. Oil Extra Heavy** overcomes beater lubrication difficulties.



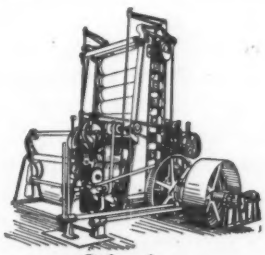
### Jordans

Because of the high speeds and heavy pressures which are always present, and the side pull on bearings when belt driven, it is necessary to use a heavy bodied oil. For this purpose we recommend **Gargoyle D. T. E. Oil Extra Heavy.**

### Paper Machines

For bearings of the paper machine, subjected to induced heat from steam used for drying, an extra heavy bodied oil is required such as **Gargoyle D. T. E. Oil Extra Heavy.**

The rolls at the wet end subjected to moisture and heavy pressure demand a compounded oil which will resist the washing tendency and maintain a perfect oil film. We recommend **Gargoyle Voco Engine Oil No. 1** for these specially trying conditions.



### Calenders

Paper machine production is directly dependent upon uniform speed. Calender bearings are subjected to heavy pressures and high frictional heat. The regular application of **Gargoyle D. T. E. Oil Extra Heavy** insures uniform speed, and consequently minimizes "broke."

# VACUUM OIL COMPANY

# Editorial

Vol. LXXV New York, December 21, 1922 No. 25
FIFTY-FIRST YEAR

## Merry Christmas

The spirit of Christmas is with us again. This has been made very apparent in the past few days by the numerous cards and other expressions of good will of like nature which have been reaching this office. The PAPER TRADE JOURNAL is very grateful for all these remembrances and it takes this opportunity of expressing its thanks for them. To all of its numerous subscribers, to its advertisers and friends it wishes a Merry Christmas and a Happy New Year, with the hope that the coming year will be filled with much prosperity and other choice blessings.

## Complaint Against Coast Dealers

Paper men generally throughout the country will watch with deep interest the outcome of the complaint of the Federal Trade Commission against the Pacific States Paper Trade Association, its officers and members because of alleged improper maintenance of prices and other unlawful practices. The charge certainly came as a distinct surprise because it has been believed that all the associations in the paper trade have been honestly endeavoring to obey both the spirit and the letter of the law in this respect.

The PAPER TRADE JOURNAL is told by one prominent authority in association matters, who visited the Coast two years ago, that it did not appear to him as though there was any necessity for collusion on the part of paper dealers or any other unfair methods of competition which might be regarded as in restraint of trade. At that time it was perfectly legal to establish a reasonable minimum wholesale price in the State of California. This right was set forth in the Cartwright Law, which it is believed, continues in effect to the present day.

The Federal Trade Commission has made a great many charges against the paper dealers and associations in this formal complaint. It will, undoubtedly, encounter considerable difficulty in proving that such conditions exist. The charges brought against the various associations and individual concerns must be proven to be in direct violation of interstate commerce regulations, else they are not within the scope of the Commission. The bulk of transactions carried on in the Pacific Coast region is consummated within the borders of a single state, but if even a small percentage of the business is of an interstate character and is shown to be illegal, the Federal Trade Commission has sufficient grounds to institute a complaint, and demand that such practices shall cease.

Perhaps the most important feature of the charges brought by the commission is that dealing with "legitimate" and "illegitimate" dealers. In the opinion, however, of those acquainted with the situation there is no such thing as an "illegitimate" dealer in the Pacific Coast paper trade. Many of the smaller dealers purchase regularly from the larger wholesalers and there would be nothing to be gained by ostracizing them as the complaint charges. Of course, if the Commission can prove conclusively that the Pacific States Trade Association acting as a unit, and embodying the majority of paper wholesalers in that region, actually distributed so-called "black lists" or "white lists" among its members, requiring that they patronize certain houses and forbidding them to do business with others, and then that the members carried these mandates into effect, they would have grounds for requiring a cessation of such practice. We cannot conceive, however, that this has been the case. The wholesalers, under the California law, if we are correctly informed, have a right to establish a minimum price on their goods if this price is within reason. They also are endowed with the right to protect their business interests by every legal means. We do not believe that any more than this is being done.

The first paragraph of the complaint has to do entirely with jurisdictional facts which are purported to warrant such an investigation by the Federal Trade Commission. The second paragraph differentiates between "legitimate" and "illegitimate" wholesalers as they are alleged to be regarded and designated by members of the Pacific Coast Association. The third paragraph contains the "meat" of the complaint. It charges that the collusion on the part of the various associations will lessen and restrict competition in the sale of paper and paper products in the Pacific States; prevent brokers, agents and manufacturers from selling direct to the retail trade or to the consumer and other persons who are not members of the local associations from selling at wholesale in this region; enhance the wholesale price of these commodities above the price which would prevail under normal, natural and open competition and hinder the natural flow of commerce in these commodities in the channels of interstate trade.

It will be interesting to note the outcome of this investigation. It will serve to show paper wholesalers, dealers and their associations just what they can and cannot do. The laws in this regard are very vague and always subject to misinterpretation. This case will undoubtedly be regarded as a "test" case and associations the country over will base their future operations upon the decisions rendered. For this reason probably more good than harm will come of the matter. We feel that the operations of the Pacific Coast Paper Associations are such that they can stand the shedding of light upon them. The complaint will, however, give the lawmakers an opportunity of making some hazy points more explicit and this will be appreciated by every such association in the country.

## Foreign Paper Prices Lower

The monthly average import price of news print was slightly less for September than the preceeding month, according to the latest foreign trade prices issued by the Department of Commerce at Washington. The price for September was only 3.49 cents per pound as against 3.59 cents for August, and 4.3 cents for September, a year ago.

The monthly average import prices of all varieties of wood pulp for September also showed a decline as compared with August. The average import price per ton of ground wood for September was only $28.78 as compared with $29.69 for August, and $26.44 for September of last year.

The monthly average import price per ton of unbleached

chemical pulp for September was only $51.75 as compared with $53.35 for August, and $61.35 for September of last year.

The monthly average import price per ton of bleached chemical pulp for September was only $79.14 as compared with $82.36 for August. The price for September of last year was $69.52.

The average monthly import price of pulpwood per cord for September on the other hand as compared with August showed a considerable increase, the price for the former month being $11.10 as compared with $10.92 for the latter and $12.78 for September a year ago.

The average monthly export price per pound of news print for September declined somewhat, compared with August, the figures for the former month being 4.4 cents and for the latter 4.7 cents. The figures for September a year ago were 5.3 cents.

The average monthly export price per ton of wood pulp for September was $50.50 as compared with $62.67 for August, and $51.50 for September a year ago.

## Reserve Board Reports Paper Demand Good

WASHINGTON, D. C., December 20, 1922.—Seasonal recessions in the production of the various grades of pulp and paper are shown by statistics for September, but demand has continued to be good for most lines, says the Federal Reserve Board in its monthly summary of business and manufacturing conditions.

Newsprint production for October totaled 130,682 tons, as compared with 125,402 tons during September, and 101,884 tons during October, 1921. Output of paper board in September reached the highest point attained in two years, but reports from the Philadelphia district indicate orders received by producers of card and box boards fell off in November, and operations have been accordingly reduced. Dealers in both the Boston and Philadelphia districts received a large volume of business during October and early November. Most of the mills in the Philadelphia district are operating at capacity on back orders. The demand for paper boxes in the Philadelphia district improved during November.

The general level of paper prices has been firm for some time, although slight fluctuations in certain grades have occurred. Pulp prices are advancing.

## Waste Dealers Oppose Moisture Tests

NEW YORK, N. Y., December 20, 1922.—That the National Association of Waste Material Dealers, Inc., Times Building, New York, is opposed to any such moisture tests as were proposed by roofing paper and felt manufacturers, was clearly brought out in the meeting of the Paper Stock Division held at 11:00 a. m. yesterday in the Astor Hotel. This decision came as a result of a plan tendered by the Felt Manufacturers' Association whereby the allowance for moisture was placed at 7½ per cent. This figure, the association believes, should be advanced to 10 per cent.

Preceding the meeting of the Paper Stock Division, the Waste Paper Division convened at 10:00 a. m., yesterday. After a meeting of the Foreign Trade Division at noon, the entire assemblage retired for luncheon at 1:00 o'clock.

During the various meetings arrangements were made for a classification covering bagging and the association approved of a classification covering all cotton rags to be used by paper manufacturers.

## To Sell Output of Phoenix Paper Co.

GREENWICH, N. Y., December 20, 1922.—The Sanquoit Toilet Paper Company, New Hartford, N. Y., has arranged to sell the output of the Phoenix Paper Company, of Battenville, N. Y. All inquiries for tissue toilet paper should be addressed to the former concern.

## How Cost Associations May Function

WASHINGTON, D. C., December 20, 1922.—Trade associations or groups interested in cost accounting may meet solely for the purpose of the study of costs, the detection of errors and the improvements of their methods without contravention of law, in the opinion of Commissioner Nelson B. Gaskill, of the Federal Trade Commission. Mr. Gaskill further believes that it is perfectly legal to make reports of such conferences available to absent members, government agencies and other interested parties.

This opinion was expressed unofficially today by Mr. Gaskill in response to an inquiry from E. W. McCullough, manager of the Fabricated Production Department of the Chamber of Commerce of the United States.

"I have previously expressed my firm belief," writes Commissioner Gaskill, "that cost accounting is a legitimate trade association activity, and subsequent consideration has merely strengthened this conviction. Collective analytical study of the results of cost accounting furnishes an invaluable supplement to the individual cost accounting work. Comparison of results, analysis of results and the study and discussion of these results lead to the improvement of methods and the increase of efficiency. To prohibit collective study of costs for the purpose of their analysis, the detection of errors, and the improvement of methods, is to shackle educative progress.

"Of course the legal situation is confused by reason of the decision in the Harwood Lumber case and the Linseed Oil case, and it will be some time probably before this confusion will be cleared by any additional authoritative decisions. Trade associations must therefore determine as accurately as they can the legitimate field of proper endeavor and, having so taken counsel, should, without hesitation, resting upon their legal advice and the clear consciousness of the propriety of their efforts, proceed without fear, willingly inviting the test of the courts' consideration of their conduct.

"I cannot find any reason for believing that the activities as defined by your questions are per se illegal. They may become so of course, if coupled with the use of other practices directed toward an unlawful end. But it is to be observed that a course of conduct lawful in itself, does not become unlawful merely because it may be used to accomplish an unlawful object. A course of conduct lawful in itself is judged by its result or by the intent with which it is used. Prior to the appearance of an unlawful result the unlawful intent must be so clearly manifested that the unlawful result is forecast as a natural and approximate consequence before the conduct can be condemned. A lawful course of conduct therefore may be condemned by presumption of an unlawful intent when an unlawful result must first be presumed in order to deduce from it the unlawful quality of the intent which guides conduct.

"A trade association activity conducted strictly in accordance with the terms of your question seems to me to stand clearly revealed as a legitimate activity directed to a lawful result. My answer to both your questions would therefore be in the affirmative."

## Paper Salesmen to Meet at Springfield

The New England division of the Salesmen's Association will hold a conference with the paper mill executives of Holyoke, Springfield and Boston districts at the Old Colony Club, Springfield, Mass., on Friday, January 5, 1923. The affair is informal and will be a real man to man conference, from which much of value is expected to develop. Among the speakers will be President Phillip T. Dodge of the International Paper Company, President W. J. Raybold of the B. D. Rising Paper Company, and Judge Robert Munger of Ansonia, Conn. A real old-fashioned New England dinner will be served at 6.30 P. M. It is intended to call the conference at 4.30 o'clock in the afternoon, so as to have much of the business interest disposed of prior to the evening program. As it is the first of the New Year meetings it is expected a large attendance will be present.

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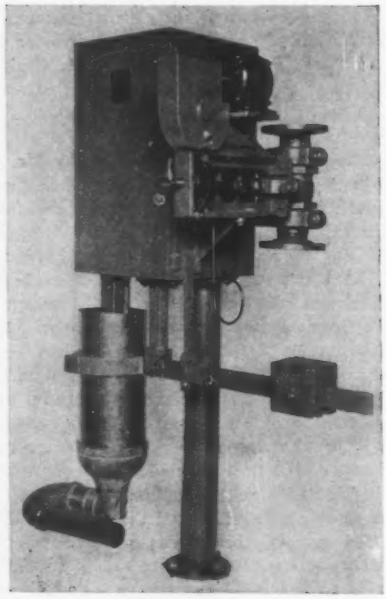

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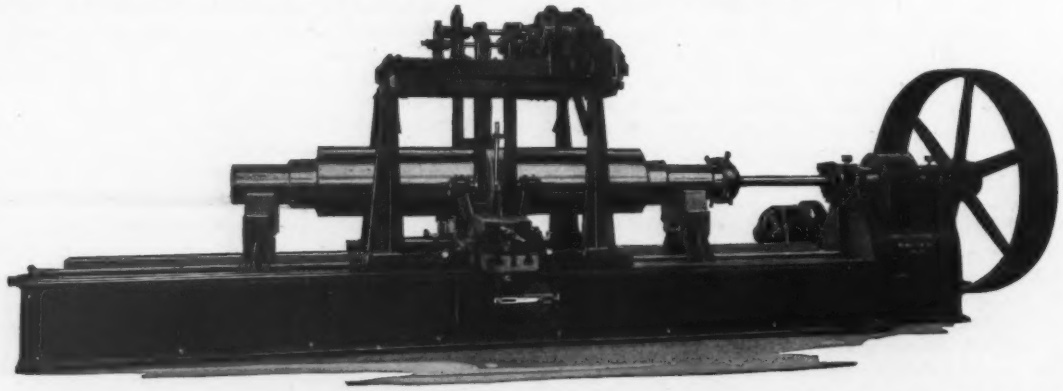

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Section of the

Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W. G. MacNAUGHTON, Secretary

# DISCUSSION ON PAPER TESTING AT THE FALL MEETING OF T. A. P. P. I. AT DETROIT

*(Continued from last week)*

S. D. WELLS: Mr. Curtis, is the Bureau of Standards doing any work to determine the durability of chemical pulp papers? Could you say that a well bleached sulphite pulp, which has been well washed and carefully manufactured was not as durable as a rag paper?

CHAIRMAN CURTIS: We are not doing any of that work now. However, I think it is a very necessary investigation.

I understand that by removing the *beta* and *gamma* cellulose chemically, as durable a sheet is obtained from wood fiber as from rag. The subject needs considerable investigation and I hope the Bureau, co-operating with some mill laboratories can go into that subject. We have all believed, I think, that rag is better than wood for durability, and for length of service, but I don't know of anybody with data to prove it.

S. D. WELLS: A sulphite paper that is insufficiently washed won't be durable; it will go to pieces in a few months; a soda pulp paper the same. I believe, however, we have had some wood pulp paper on hand at the laboratory for ten years that does not show any evidence of deterioration.

During the war we did a good deal of work with the War Department on the nitration of wood pulp, and as the work progressed, we experimented with unbleached wood pulp and got just as stable a product as from nitrated cotton which met specifications. The sooner we can make that investigation regarding durability the better it will be because it will save a great deal of money to the paper manufacturers.

CHAIRMAN CURTIS: We know that the cooking and bleaching of wood pulp are more severe treatments than the preparation of rags. We know that there are more chances of carrying the cooking or the bleaching too far than in the case of rags, but it is my opinion that with care in cooking and bleaching sulphite, a paper can be obtained that will probably last as long as the rag fiber, but the chances are greater in the case of the wood pulp of there being deteriorating factors than in the case of rag pulp.

H. U. KIELY: In considering durability does it mean taking a piece of paper of wood pulp and putting it in a drawer and letting it stand for ten years? Is that what you mean by ageing?

S. D. WELLS: Putting it in an office or in a library under conditions of actual use.

CHAIRMAN CURTIS: The subject is very complicated. I know that in India a report indicated that rag fiber is the only material that would endure there for any length of time. Moisture conditions destroyed the wood fiber much more quickly than the rag fiber, and that substantiates the probable attitude that rag does last longer.

We have got two more subjects; one of them I am only going to take five minutes on, and then there is an open meeting on the other subject. I am going to give a little report on the questionnaire we sent out and then we are going to have an open meeting on testing, the sizing quality of paper.

We sent out through the secretary's office a questionnaire in regard to paper testing. The purpose was to find out what tests were being made on the different grades of paper, what was the general attitude toward testing, and what equipment was available for co-operative study. That is, to know what mills had folding testers and tearing testers, etc., to know what to look for in co-operation and to get a general idea as to the feeling of the members of the association as to paper testing. We received 54 replies, of which four didn't do any testing.

The greatest number of different kinds of apparatus used was in connection with weight and thickness and waterproof tests. There are ten or twelve methods for making waterproof tests. A large number of mills make no folding test, no breaking strength test, no absorption test, no sizing test, no tearing test, no finish test and no waterproof test. Of course the tests made are dependent upon the kind of paper being made and they haven't been subdivided into grades of paper because there is not enough data.

There is one thing that stands out and that is the apparent belief in the fact that the test for sizing quality and the test for water resistance are the same thing; that is, in many cases the same tests are applied for both.

The second thing that stands out is the fact that most of those replying don't know the accuracy of their apparatus; they say it is "O. K." and "very good," or the scale divisions are given say, on a Schopper tensile tester, if the scale is divided into one-tenth of a kilogram, that is the accuracy of the machine. The same is true with the Mullen and the other testing apparatus.

Another interesting thing that came out of these replies was the diametrically opposite opinion in regard to the Valley Size Tester and the Elmendorf Tearing Tester. Some are highly in favor of it and some think it is not worth anything. That should be investigated.

I am not going to report any further nor discuss this because there is not enough information. I am hoping that the secretary



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can get some more replies so that we can draw conclusions that mean something. The committee, however, has been helped a great deal by a number of suggestions and there are many ideas on sizing tests and waterproofing which we can investigate and get co-operation on. It is not a very satisfactory return and the only conclusion I can make is that only ten per cent of the membership is interested in paper testing.

The next subject is Sizing Quality Determination. I said I wasn't going to say anything, but I am. F. T. Carson of our laboratory published an additional paper, or a supplementary report on the Determination of Sizing Quality in the PAPER TRADE JOURNAL of September 7. Last month he prepared a short synopsis of the paper which I am going to present.

### Development of Test Methods for Sizing Quality

The purpose of sizing according to Cross and Bevan, is to affect the paper in such a manner that the absorption of ink will take place in a direction normal to the surface instead of laterally. According to this view sizing quality would necessarily be defined in terms of the spreading of the ink, i. e., in terms of surface capillarity or lateral absorption. On the other hand, all the test methods thus far proposed, with the exception of Herzberg's Ink Stroke method and possibly Sammet's method, are of such a nature as to measure the absorption normal to the surface.

The various methods are classified in the following table:

| Lateral Absorption or Surface Capillarity | Normal Absorption | Normal Penetration | Difficult to Classify |
|---|---|---|---|
| Herzberg Ink Stroke Method | Tongue Test | Klemm Ink Flotation | Sammet |
| Undeveloped New Method | Ink Drop Test | Indicator Modification of Klemm | |
| | Curl | Acid Flotation | |
| | | Schluttig-Neuman | |
| | | Leonhardi[1] | |
| | | Ferrocyanide | |
| | | Denöel (Patented) | |
| | | Stöckigt[1] | |
| | | Modified Stöckigt (Unpublished)[2] | |
| | | Okell Electrolytic | |
| | | Valley Size Tester (Modification of Okell) | |
| | | Hickman (Unpublished)[2] | |

The common conception of sizing quality is, therefore, seen to demand either that the definition be in terms of normal absorption or penetration, or that the normal absorption bear a constant relation to lateral absorption and, therefore, be a measure of it. Such a relation holds true in only a very general sense and is tenable only for very rough comparative tests on paper of the same class, i. e., of the same composition and structure.

It would seem that "sizing quality" could not truly be defined in terms of either lateral absorption or normal absorption alone, but is to be judged as a result of the independent measurement of both, just as the strength of paper is judged as a result of independent measurements of strength in cross and machine directions.

Again, just as the strength in one direction or the other may be the predominating factor for a given use, so the lateral absorption or normal absorption may be the predominating factor for a particular use. Obviously, for writing with pen and ink the lateral absorption is of primary importance while the normal absorption is secondary. In printing both are of importance. In testing for suitable paper to prevent offsetting normal absorption becomes the predominating factor. In testing the "sizing quality" of paper intended to be tub sized the normal absorption is the only factor of importance. This is also true for blue print papers.

### Purpose and Requirements

(1) For mill control and checking progress in manufacture it is probable that either type of method would do, for the test is merely comparative on papers of the same class. A high degree of accuracy is not essential. But a test method should be able to differentiate somewhat within the three general groups; slack-sized, medium-sized and hard-sized. It should also be as far as possible independent of the effect of thickness on the test in order that variations in thickness on papers of even the same class will not lead to erroneous conclusions.

(2) The consumer needs methods which will measure independently the two kinds of absorption and with an accuracy at least equivalent to that needed in the mill, for the consumer may have to make the same kinds of demands on papers of different classes and from different sources. The methods should, therefore, be independent of composition and structure as well as thickness. The particular demands will determine which kind of absorption it is of primary importance to measure.

(3) Much more exacting requirements of tests methods are made by research work into the effects on sizing quality of the various materials, processes and methods of treatment in the manufacture of paper. It should be possible to measure both kinds of absorption with considerable accuracy. It seems possible, however, to obtain important data by the use of either kind of test method alone in dealing with the factors which influence sizing quality in papers of the same class. No method thus far proposed is considered sufficiently developed, accurate and dependable for conclusion results. Certain tendencies, however, can no doubt be determined by the use of the best of the methods in conjunction. However, for the study of such questions as the precise facility with which different kinds of fibers are sized and the comparison of the effect of different finishes and surface treatments, the present methods would probably be found inadequate.

The development of the best of current methods is to be pressed. Certain modifications and improvements are being tried which it is hoped will increase the value of these methods. Two new (unpubiished) methods are also being developed.

CHAIRMAN CURTIS: Has any one done any more work since the last meeting on sizing quality? Mr. Peckham, haven't you done some work on that?

H. L. PECKHAM: We have, on approval, the Valley Size Tester, but have only had it about a week. We have used the flotation test for three years and we compared results with the Valley Size Tester. The result checked approximately ten to thirty seconds on ledgers, 28 pound ledgers, and on bonds within five seconds. However, there is so much more work to be done on it that we haven't arrived at any definite conclusions.

One difficulty is that the Valley Size Tester method is entirely too long and complicated for control purposes and especially an objectionable feature is the placing of the sample.

CHAIRMAN CURTIS: Has any one else anything to say on this sizing quality? Has anybody done any work on it?

R. H. NORRIS: We use quite a lot of paper similar to book papers for gumming purposes, and during the last few years we have found quite a large range in those papers in the way they take the gum or glue. As the paper is gummed, the gum should stay on the surface; it is no good on the interior of the sheet as it only makes the paper wiry and stiff. The finished product isn't as good when the glue has gone into it, it also requires more glue thereby increasing the cost of production.

We have been trying to work out some method for classifying papers as to their gumming qualities. We have tested them out by a number of different methods; some of them haven't been practical from our point of view, and others haven't given us the actual working conditions. The method we are using now and apparently getting the best results in flotation on an acid, with an indicator on the other side. That gives the normal penetration but doesn't take into consideration the thickness of the paper.

A. T. RANDALL: We have a problem where we treat paper with bakelite and we have found that the porosity of the sheet gives us more information in absorbency tests.

CHAIRMAN CURTIS: I want to bring out here some of the things that I, as Chairman of the Committee, have been up against. A representative of one of the electrical companies asked "What is

[1] Leonhordi & Stöckigt attempt to account for thickness by using the weight factor.
[2] Thickness is to be considered in these test methods.

the method of determining the penetration of air through a sheet? Give us a method for that." Another man, Mr. Morrison, from Newton Falls wants a good method for measuring opacity of paper. I think it is up to the committee to help on such problems.

My observations, particularly in the last year, have led me to feel that there is an increasing interest in paper tests. I get it through correspondents who used to write in and just ask a general question on paper testing. Now they ask specific questions, and make inquiries as to accuracy. There seems to be a tendency to consider paper testing more important, and I think the committee has a definite responsibility in considering all these tests and putting them under advisement.

There is one more point I want to bring up. Here is a letter I received this morning which is indicative of this very thing. It is from the Chairman of Committee D-9 on Electrical Insulating Materials of the A. S. T. M. It reads:

"Dear Sir: Committee D-9 of the American Society for Testing Materials is working on the general problem of standardizing methods of testing electrical insulating materials. An important class of such materials is untreated paper, a large quantity of which is used in the electrical industry. We have a subcommittee working on tests for sheet insulating materials, including tests of untreated papers which are used for electrical insulating purposes, the subcommittee being under the chairmanship of Mr. Dean Harvey, Materials and Process Engineering Department, Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa.

"My attention has been called to the fact that your committee has been and is doing a large amount of work along the same line and the suggestion has been made that co-operation between our committees, insofar as standardization of methods of testing paper is concerned, would be of value both to you, as representatives of the manufacturers, and to us as representing very largely the consuming interests.

"I am taking the liberty of sending this letter to you through the courtesy of Mr. A. T. Randall of the Westinghouse Electric & Mfg. Company, with the thought that you might desire to present the suggestion to your committee at the meeting which, I understand, is to be held in Detroit next week. If the suggestion that co-operation between the two committees by means of exchanged representatives meets with your approval, definite arrangements can be worked out later.

(Signed) F. M. FARMER."

That is indicative of the necessity for the Paper Testing Committee to assist consumers in getting right kind of tests and also of the interest in this subject.

I am going to ask Mr. Randall to say just a word or two as to his problem. Mr. Randall.

A. T. RANDALL: I suppose you mean what tests we are interested in for electrical papers?

CHAIRMAN CURTIS: Yes, just briefly.

A. T. RANDALL: The first thing is dielectric strength for metal particles. That is an easy test. Another test is the porosity of the sheet which will give the measurement of absorbency, in a way; that is, just how much bakelite or varnish will sink into the sheet. Then we are interested in basis weight, Mullen, tensile, ash, machining qualities of plate made from the paper, and fiber analysis to show whether the paper is made from rag or wood pulp, because when these papers are treated and heated, we find a wood pulp will break down and won't stand the treatment, so it is necessary that the sheet be mostly rag. Then, of course there is moisture content and acidity for light papers. Tearing test is one of the most important tests because it will show just how the paper will go through the treating towers. The tearing tests are more important than the tensile tests.

CHAIRMAN CURTIS: Does any one have any suggestions on this? Is it desirable that this Committee co-operate with Committee D-9 of the A. S. T. M.? My thought on the matter is that if we can co-operate we will eliminate several discrepancies between standard methods of testing. There is no use of every consumer having his own methods of testing, and the manufacturer certainly ought to have a chance to discuss the matter with him and get a method which is as fair to the manufacturer as to the consumer. As it seems to me, there is an opportunity here for the manufacturer to help out the consumer, and I am in favor of helping out the consumer as much as possible.

S. D. WELLS: I certainly think it would be desirable to get together with them and work the tests out together so that there wouldn't be a large number of independent tests. There is probably one test that would meet all the needs of the situation.

CHAIRMAN CURTIS: Miss Kiely, what do you think?

H. U. KIELY: I would like to co-operate with them and that is the thing we should do by all means.

H. L. PECKHAM: I am in favor of co-operating.

CHAIRMAN CURTIS: Are there any other suggestions on this?

We are planning quite a bit of work this winter for the Spring meeting. We are going to finish up the microscopic work, if we can, the folding; take up the study of tearing tests, probably have one or two papers on sizing quality and one, I hope to have ready on a method of measuring the coloring of paper. I ask every one to co-operate with the Committee this winter and give them all the help they can, and if you haven't filled out one of the questionnaires, please do it. It may take some time because you may not have on record the accuracy of your apparatus, but give the best information you can.

(*To be continued*)

## R. S. Kellogg Speaks at Watertown

WATERTOWN, N. Y., December 18, 1922.—R. S. Kellogg, of New York, secretary of the News Print Service Bureau of New York, spoke at the Rotary Club luncheon Wednesday noon of last week at the Hotel Woodruff. He spoke particularly of the news print situation that is now confronting the United States.

He cited the fact that it would be absolutely necessary for the utmost reforestation plans to be carried out in order to put the timber lands of the United States and Canada upon a bigger producing basis. He predicted that in 20 or 30 years from now, pulpwood would be higher in price than in 75 or 80 years when the new growth of wood would be ready to cut.

The United States uses one-half of all the paper produced in the world. During the present year, there will be an average of 140 pounds of paper used by every man, woman and child. The amount of newsprint alone that will be used will be 40 pounds.

Mr. Kellogg stated that newspaper advertising was largely responsible for the increased consumption. Another factor is the increased size of almost every daily paper over a few years ago. He claimed that the national advertisers were using the newspaper to a greater extent to quickly get their message to the people. At the present time, newspaper advertising is only 5 per cent under the 1920 peak and that magazine advertising is now 35 per cent under showing the rapid advance of newspaper space used. There will be more than 2,500,000 tons of news print used in America this year.

Mr. Kellogg stated that there would be no need for any publisher to go beyond North America for news print paper and the 1923 production would be greatly increased by the new machines that were being installed daily in the largest mills of the country. The biggest proposition now is to secure the raw materials in which to make the paper.

In 1920 the publishers had a great scare, he stated, and when the excitement died down, the publishers found out that they had 50 per cent more on hand, that there had only been a 5 per cent increase in consumption and that there had been a 10 per cent increase in production. The publishers finally woke up that they had laid in the greatest stock of reserve at the highest prices there were ever known. The consumption for 1923 will be at least 13 per cent greater than in 1920.



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# THE RUTH HEAT ACCUMULATOR*

## A Discussion of Its Characteristics and of its Importance to the Paper Industry.

By Fritz Englert.

### Foreword

The Ruth heat accumulator, which was invented by the well known Swedish engineer, Dr. Ruth, is not unknown to the American paper industry. Its importance, as a heat-saving apparatus, to that industry is not altogether appreciated in America, and only recently the president of a large paper company, on his return from Europe, had a good deal to say about the importance of the apparatus. It was accordingly considered well worth while translating the rather long article by Englert, in which there is given a very good description of the peculiar features of the apparatus and of the practical results that can be obtained with its use in paper mills.

### 1. General Fundamentals

The efforts, that have been made in the attempt to conserve steam, have been limited almost entirely up to the present time to the metallurgical industry. In metallurgical plants it is customary to collect the exhaust steam from regularly or irregularly periodically operating steam consumers, mostly large steam engines, and to lead this exhaust steam in a uniform flow to secondary steam consumers, ordinarily steam turbines. The various heat accumulators of the hot water, surface and other types, which have been used for this purpose up to the present time, have only a very limited capacity for heat accumulation, even when they are of very large volume. For they must be able to work in locations at low points and in confined surroundings, and, furthermore, they must be able to operate with slight or almost no variation in pressure. A diminution in the steam consumption of a definite installation is always connected with their use. The variation in the steam consumption of the prime consumer, however, is transmitted directly to the boiler house and can be met by the latter with more difficulty the less possible it is to foretell just when the increased steam demand will take place. It is just in this direction that the invention, made by the Swedish engineer, Dr. Ruth, is able to furnish redress. His task was to make possible regular production of steam in plants where the variation in steam demand is very great. This is done by absorbing, that is storing, the excess steam at times, when the production is greater than the consumption, so as to yield this excess up again when the reverse condition holds good. Hence in those plants where the steam consumption varies, it affects the maintenance of a regular uniform supply of steam for the steam users. It therefore acts like the flywheel of an engine or like a storage battery which stores up excess energy and yields the same when called upon.

### Ruth Accumulator is a Hot Water Apparatus

Just like the Rateau accumulator and the fireless locomotive, the Ruth accumulator works on the hot water principle. Its physical basic characteristics are similar to both of the aforementioned apparatus. Similar to the fireless locomotive, it has a high working pressure and pressure limits, including a wide range of working pressures. It is differentiated from the fireless locomotive in being connected fast to the heat consumer, and from the Rateau regenerator—not including the pressure conditions—by its installation between the steam producers and the steam consumers and by the possibility of its introduction into steam lines feeding apparatus which are simultaneously heat and power consumers.

### Processes Taking Place in the Absorption and Delivery of Steam

If $D$ kilograms of steam, possessing a heat content of $X$ heat units per kilogram, are fed into an accumulator, the water in which is equal to $G$ kilograms in weight, the temperature $t$ degrees Cent. and the heat content of the liquid $q$ heat units per kilogram, then the steam is condensed in the water, whereat the weight of the water is increased to G plus D kilograms and the heat contained in it is increased to $q_1$ heat units per kilograms. This is co-ordinate with a definite temperature $t_1$ degrees Cent. which is prevalent in the heat accumulator at the pressure existing therein. When for the time being the heat losses are not taken into consideration, then we have the following equation:

$$Gq + DX = (G + D).q_1.$$

This equation enables us to determine the increase in pressure during the charging operation.

The removal of steam from the accumulator results in the dimi-

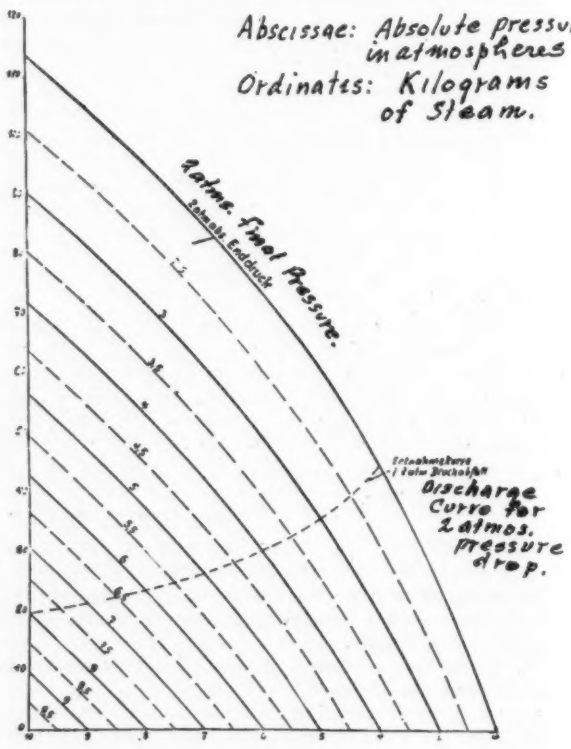


Fig. 1

Quantities of Steam Discharged From a Heat Accumulator of 1,000 Kilograms Initial Contents, Between Different Pressure Limits.

nution of the pressure, the magnitude of which may be determined from the following equation:

$G_1 q_1 - D_1 X^m = (G_1 - D_1)q_2$. In this equation no account is again taken of the losses in cooling. Consequently, the symbol Xm denotes the heat content in the steam leaving the accumulator.

### Steam Discharge from an Accumulator

In Fig. 1 there are given all possible values of $D_1$, quantity of steam that can be removed from the accumulator, for a range of pressures from 1,000 kilograms of initial weight in the accumulator. From this figure it can be seen that the quantity of steam becomes greater as the pressure limits lie further away from each other, but that a definite reduction in pressure yields a greater

*Zellstoff und Papier 1922, 213-223. Translated by Ismar Ginsburg B. S., Chem. Eng.

amount of steam, the lower the pressure region lies with which this takes place. The curve, showing the removal of steam for a pressure drop of 2 atmospheres, allows this conclusion to be drawn. In the higher pressure regions the differences are still greater. A reduction in pressure from 20 to 19 atmospheres absolute yields 5 kilograms of steam for each cubic meter of water in the accumulator at the outset. Such a drop in pressure, however, from 3 to 2 atmospheres absolute yields 23 kilograms of steam, which is almost five times as great.

### Explanation of Steam Yield with Pressure Drop

The explanation of this phenomenon is as follows. The water vapor temperature changes much more greatly in the lower pressure regions than in the upper pressure regions. If the accumulation capacity that is required of the accumulator is first determined and if its pressure limits are known, then from Fig. 1 it is possible to determine the weight of the water that is filled into the apparatus at the start and also the cubic contents of the apparatus, which is chosen as a rule about 5 to 10 per cent greater than the volume of the filling water.

### Dimensions of the Heat Accumulator

Among other things the requirement, that the surface of the accumulator should be as small as possible in relation to the weight of the water filling, is one of the principal factors which determine the selection of the dimensions of the accumulator. This is of particular importance as far as the resulting heat loss is concerned. By far the majority of the accumulators, which have been installed up to the present time, have been located in the open. As a rule they are provided with a heat protective covering of kieselguhr or asbestos. They are also protected against the weather with a thin sheet metal covering which is both rain-proof and weather-resistant. The heat losses in such an installation are of importance. These losses may be calculated with a considerable degree of accuracy under these conditions. If the coefficient of heat transmission from non-boiling water to iron is assumed to be 500 calories per square meter-hour per degree Centigrade, and the coefficient of heat conductivity of one meter kieselguhr, according to the most recent experiments, to be 0.08, while the heat transmission to air, moving at a moderate rate of speed, is assumed to be 5, then the heat loss in an accumulator per hour, which has a wall thickness of 22 millimeters, is found to be 0.875 calories per square meter per degree Centigrade.

### Heat Losses in Accumulators

In the case of a heat accumulator, which has an internal diameter of 3.5 meters and which is operated at a pressure of 7 atmospheres, 169 degrees C., to which the above-mentioned thickness of sheet metal applies the heat losses at a constant external temperature of 0 degrees C then become equal to 0.875 times 169 or 148 calories per square meter per hour. If the capacity of the heat accumulator is fixed at 125 cubic meters, then the surface area is 150 square meters, so that the total hourly heat loss becomes equal to Q or 150 times 148, that is 22,200 calories. In the plant, of which this heat accumulator forms a part (The Grycksbo Cellulose and Paper Works, Sweden), the hourly production of steam amounts to 6,050 kilograms which has a total heat value of four million calories. The total heat loss amounts only 0.5 per cent, figured on this quantity of total heat in the steam.

### The Cooling Effect in the Heat Accumulator

The cooling effect, which takes place, when the filled heat accumulator is cut off from the steam boiler and left to itself, may be calculated as follows. If the temperature of the contents of the heat accumulator is assumed to be T at any moment, the temperature of the external air, which is assumed to remain constant is taken as t, then in the differential time dz the quantity of heat that is emitted may be found from the following equation:

$dq = O.\ k.\ (T - t)\ dz$. In this equation O represents the total surface area and k the calculated coefficient of heat transmission. The heat content of the vessel changes by the quantity G. c. dT, if G is the weight of the water in the accumulator, and c the specific heat of the water, which is assumed to be constant for the sake of simplicity of calculation. Then the following must be true:

$G.\ c.\ dT = O.\ k.\ (T - t)\ dz$ or $\frac{G.\ c.\ dT}{T - t} = O.\ k.\ dz$. When this differential equation is integrated, the following expression is obtained: $G.\ c.\ l_n \frac{T_1 - t}{T_2 - t} = O.\ k.\ (Z_1 - Z_2)$. By means of this equation it is possible to calculate the cooling that takes place within any given definite space of time, or else the time that elapses, during which a certain amount of cooling takes places. In our case, when the outside temperature was 15 degrees C a cooling of 4 degrees C took place within 24 hours, and it took about 119 hours for the temperature of the heat accumulator to sink to 150 degrees C.

### Calculated Values Agree with Experimental Values

These calculated values agree very well with the values that were derived from actual experimental observation. In one case, that of the Hallstavik paper mill, the water in a heat accumulator, having a capacity of 85 cubic meters and a surface area of 130 square meters, was cooled off about 7 degrees C, from 154 degrees C to 147 degrees C, within a period of 24 hours, when the temperature of the surrounding air averaged about 13 degrees C. According to the given conditions this corresponds to a coefficient of heat transmission, equal to 0.8 calories per square meter per hour per degree C, which agrees very well with the value found by calculation, 0.875.

The heat losses are so small that there need be scarcely any fear that a heat accumulator, which is allowed to remain standing, in the winter time, will freeze up. At an external temperature of minus 10 degrees C, lasting for an indefinite period of time, it is estimated that the time, which would have to elapse, in order that the contents of the heat accumulator be cooled down to 0 degrees C, would be equal to 2,500 hours or approximately 100 days.

### 2. The Determination of the Capacity of the Accumulator and Special Arrangements of the Accumulator

The determination of the capacity of the accumulator presupposes a careful ascertaining of the nature of the steam consumption, that is its variation with the time, and the critical utilization of the results, in order to be able to develop a heat accumulator, which, without being unnecessarily large, is as elastic as possible. Inasmuch as operation with accumulators removes the necessity of adapting the boiler house to meet the demands of sudden increases in the steam consumption, it becomes possible very often to draw off a given quantity of heat in shorter time than before and to make the same, in that the quantity of steam that is produced within an hour's time is considerably greater than heretofore. This denotes corresponding shortening in the operating time of the heat consumer and corresponding increase in its efficiency. The changes, that occur during the course of the steam consumption, must be taken into consideration in the determination of the capacity of the heat accumulator.

### Capacity of Accumulator Determined Similarly to Mass of Fly-Wheel

The determination of the capacity of the accumulator with the aid of curve diagrams, indicating the steam consumption, which are either derived from actual experimental observation or else assumed so as to approximate practical conditions as closely as possible, is carried out in a manner similar to the determination of the mass of a fly-wheel. As this has to absorb varying amounts of work done upon it and then give it up again later, without the variation in the angular speed exceeding a certain maximum limit,



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so similarly the heat accumulator has to absorb and then give up again varying quantities of steam within definite pressure limits. The variations in the temperature, which take place in conjunction therewith, are in most cases of no importance in digesting and heating installations, as long as that minimum temperature, which is required unconditionally for the proper course of a definite chemical reaction, is maintained. Then within certain definite limits each increase in the temperature has only an accelerating effect on the chemical reaction as a rule.

### The Steam Consumption Curves

The curves, which are used to indicate the consumption of steam, are advisedly time curves, that is, they show the variation in the steam consumption with the time. The surface area, enclosed between two time elements, then represents the total amount of steam that is required for the operation of the apparatus within the specified time. The average height of the curve indicates the average regular hourly production of steam in the boiler, the production of which is the task of the heat accumulator.

The actual steam demand fluctuates in a definite manner along the line of the average steam production. The negative excess surface area represents the quantities of steam and heat, which the accumulator yields, as the pressure is reduced, the positive deficiency surface area then represents the quantities of steam and heat that the accumulator must absorb as the pressure rises. The valuation of the negative excess area and the positive deficiency area by the aid of the planimeter with proper consideration of the signs will then yield a maximum and minimum value of the capacity of the heat accumulator, the difference between which gives the greatest change in the water capacity, which is of equal importance as the sought-for power of the accumulator.

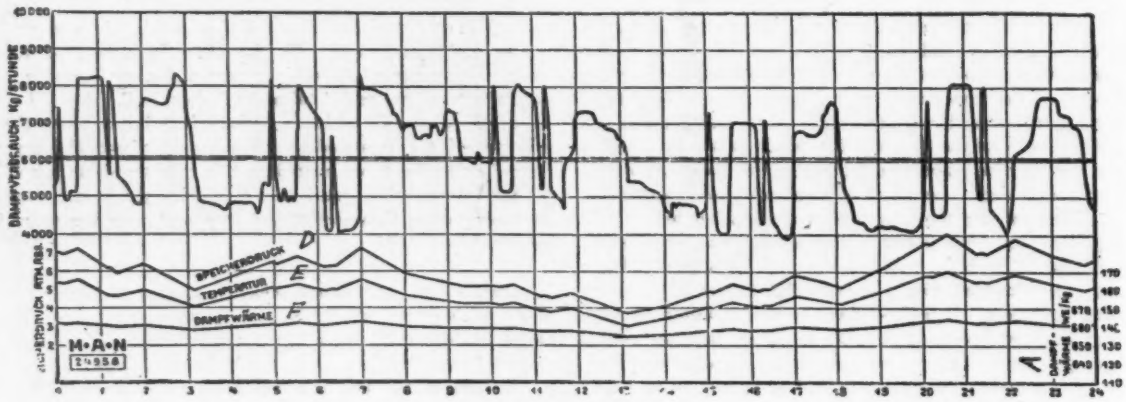


FIG. 2

Curve Showing Steam Consumption in a Paper Mill, the Heat Accumulator Being Used to Equalize the Steam Consumption and Steam Production. A, Heat in Steam in Heat Units per Kg.; B, Pressure in Heat Accumulator in Atmospheres (absolute); C, Steam Consumption in Kg. per hour; D, Pressure in Heat Accumulator; E, Temperature; F, Heat in Steam.

### Description of Figure 2

Fig. 2 represents the steam consumption curves of a paper mill for a period of time of 24 hours, and it is assumed that the variations (highest value up to 8,500 kilograms) can be equalized through the aid of an accumulator. The average uniform production of steam then sinks to about 6,050 kilograms per hour. This connotes a decrease in the heating surface area of the boilers, which are used in the operation of the plant, amounting to approximately 23 per cent. In special cases it is possible to reduce this heating surface about 50 per cent by the use of suitable heat accumulators in the plant.

### Variation in Steam Production and the Use of Accumulators

What has been said above applies as well to the case in which the quantity of steam produced varies, while the steam consumption remains constant. It also holds good when both the steam production and the steam consumption changes. The variations in the production of steam are caused by fluctuations in the amount of heat fed to the boilers. This takes place particularly in those paper mills, in which the boilers are fired with wood, as considerable variation can occur in the heat value of the wood used due to the fact that the quantity of wood refuse that is burnt may vary as well as the moisture content of the wood itself. In such plant the minimum steam production may just accidentally coincide with the maximum steam consumption. Under these conditions the value of the heat accumulator is well demonstrated as practical tests have shown that it can supply the steam demands without any difficulty.

### Heat Accumulators and Electric Steam Generators

In certain plants, such as the Wargoen paper mill in Sweden, steam is generated with the aid of electricity produced from water power. The peculiar properties of the electric steam boiler, make the insertion of the heat accumulator in the steam line between the boiler and the irregular steam consuming apparatus of particular advantage.

### The Use of Boilers as Steam Accumulators

The idea strikes one that it is possible to use the steam boiler itself as a heat or rather steam accumulator. Then when the pressure is reduced and the water content is decreased more steam can be produced than corresponds to the quantity of heat that is in the fuel, which is fed to the boiler at the very moment. The principal determining factor under these conditions is the water capacity of the boiler.

### Use of the Heat Accumulator with the Fire Tube Boiler

In this connection the use of the heat accumulator with the fire tube boiler is most advantageous, as this type of boiler has been used universally under all sorts of operating conditions up to the present time, particularly under the condition of strongly fluctuating steam demands. It possesses large water capacity and is operated under comparatively low pressures. As we have seen above, this condition is likewise of importance in determining the magnitude of the steam output on the basis of the water content in the boiler. The water capacity of the single fire tube boiler (the Cornish type of boiler) and of the double fire tube boiler (the Lancashire type of boiler) amounts to 180 to 200 liters per square meter of heating surface, while the water capacity of a new type of water-tube boiler, having a heating surface of 367 square meters, is only 60 liters. If the latter is driven at a pressure of 20 atmospheres and if the pressure is allowed to decrease to 4 atmospheres, then 515 kilograms of steam in all are obtained

from it. An equivalent fire-tube boiler installation must have approximately 520 square meters of heating surface and when the pressure is reduced from 10 atmospheres to 8 atmospheres, the accumulation capacity is approximately 1,650 kilograms of steam or more than three times as much. This represents the steam produced by the boiler under these conditions. Quite removed from the consideration that the given variations in pressure react in the most unfavorable manner possible on the steam consumption and on the operation of the power apparatus that are connected with the boiler, it is just in paper mills that considerably greater accumulation capacity is required in the majority of cases, so that under these circumstances even fire-tube boilers are eliminated.

The insertion of the accumulator means now nothing more than a great increase in the water volume of the boiler and a broadening of its pressure limits and consequently it permits the use of the more economical water-tube boilers under conditions of regular operation, independent in the highest degree of the skill and care of the stoker.

### Use of Water Tube Boilers

Moreover the use of the water tube boiler permits the production of high pressure and high superheated steam, whose pressure can be reduced by passage through the power-producing apparatus, which may be considered as energy-yielding reducing valves, to that pressure at which it can be used in digesters, drying apparatus and other machines in the paper mill. This pressure often amounts to 6 to 6.5 atmospheres.

### Construction of the Ruth Accumulator

As may be seen from Figs. 3 and 4, the Ruth heat accumulator has as a rule a cylindrical form, provided with hemispherical ends. The surface area of a heat accumulator, constructed in this manner, is smaller than that of an accumulator, of the same capacity and the same diameter but provided with flat or slightly dished ends. Likewise the resistance to stress of the hemispherical ends is greater than that of the dished ends. The safety nozzle has the purpose of limiting the rapidity of the removal of steam, so as to prevent the boiling over of the contents of the accumulator, when great quantities of steam are suddenly removed from the tom of the accumulator. The emission of the steam from the outlet takes place accordingly against the pressure of a definite column of water, which however is of no importance, due to the fact that the pressure limits, within which the majority of the Ruth accumulators work in contradistinction to other systems of heat accumulation, are very broad. The charging arrangement gives rise to such a good circulation of water, that the temperature within the water mass in the Ruth apparatus does not vary more than 0.2 degrees C at the very maximum.

### Charging and Discharging of the Apparatus

The charging and discharging of the Ruth accumulator is accomplished through the two back-pressure valves *e* and *f*, the first of which opens towards the heat accumulator and the charging arrangement and the second towards the discharge pipe. If a pressure sets in in the piping, which connects the heat accumulator with the steam boiler, or in the exhaust steam piping connected to the steam engine, which is due to a momentary excess of steam, which pressure is somewhat higher than that which exists in the steam space of the heat accumulator, then the back pressure valve, which is located in this piping, opens and permits the excess of steam to pass towards the heat accumulator. On the other hand, if the steam pressure sinks just a little under the pressure in the steam accumulator, due to the increased withdrawal in the discharge pipe, then the back pressure valve, located in the steam discharge pipe, opens. The arrangement of these two back-pressure valves makes it possible to connect the steam or heat ac-

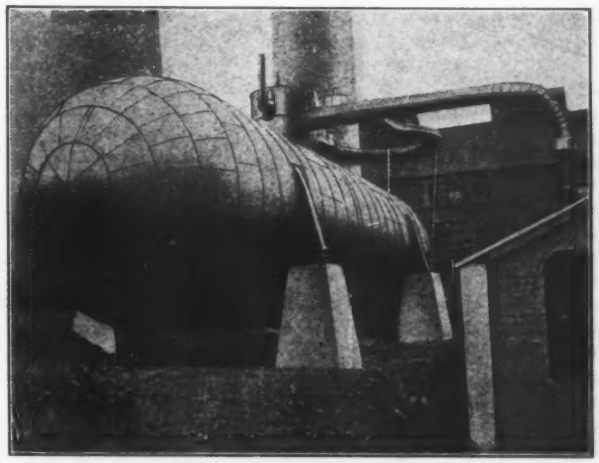

FIG. 4

The Ruth Heat Accumulator.

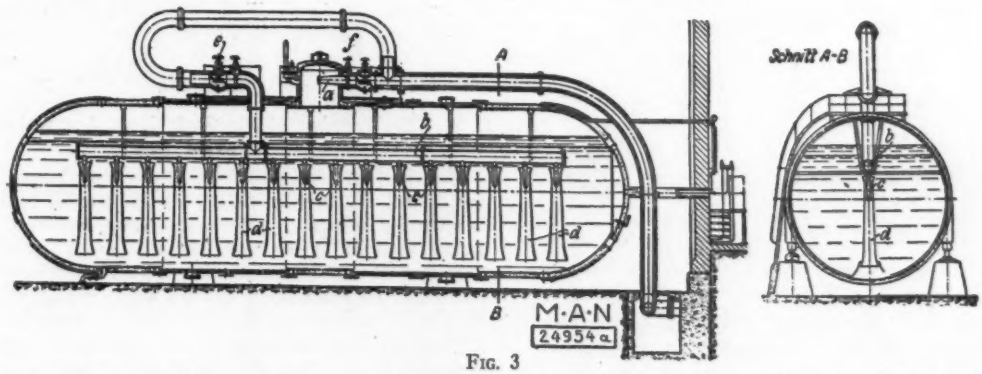


FIG. 3

Cross-sections of a Ruth Heat Accumulator. A, Safety Nozzle; B, Distributing Pipe; C, Discharging Outlet; D, Diffusion Tube; E, Back Pressure Flap for Charging the Apparatus; F, Back Pressure Flap for Discharging the Apparatus.

apparatus or when a tube breaks, and thus avoid the introduction of water into the outgoing steam pipes.

The charging arrangement consists of a horizontal distributing pipe *b*, which is located near the water surface and which extends almost the entire length of the accumulator. To this distributing pipe charging necks or outlets *a* are fastened at equidistant points and dimensioned so that equal quantities of steam can stream through all these outlets. The charging outlets are surrounded by tubular casings *d*, formed to produce diffusion of the steam. These tubular casings extend downward until they almost touch the bot-



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cumulator in parallel with its steam pipe by means of a single length of pipe, so that only that quantity of steam is allowed to pass through the back-pressure valves and the overflow valves, controlling the overflow of excess steam, as to either reduce or increase the steam production so as to meet the decreased or increased demands for steam. As the largest part of the steam passes by the heat accumulator in this manner, the steam either retains its superheat or loses it only in that proportion as saturated steam is added to it from the heat accumulator in accordance with the demand for steam in the plant.

### Pressure Changes in the Heat Accumulator

As has been explained heretofore, definite changes in the water content of the Ruth accumulator correspond to changes in the pressure in the apparatus. Consequently, these pressure differences may be determined by observation of the height of the water in the water column. This water column may moreover be used as a measure of the pressure within the heat accumulator. If it gives a lower reading than the manometer of the accumulator, then it must be refilled. Just a few minutes' study will show that this necessity can arise under certain circumstances. The heat content in the steam, which is removed from the Ruth accumulator, is somewhat variable and on the average it amounts to less than what is in the steam, charged into the apparatus, especially when this steam has first been superheated. Consequently the quantity of steam, that has to be removed under the condition of equal pressure change, is greater and the water level lies at a somewhat lower point than heretofore, when the lower pressure limit, that existed at the outset, is reached again. On the other hand the cooling loss during the discharge, especially when this takes place quickly, is smaller than the heat loss during the charging, due to the fact that the temperature difference is decreased. This has the effect of reducing the difference in the heat content of the charged and discharged steam. Consequently it also has the effect of reducing the sinking of the water level in the water column, so that the occasional refilling of the Ruth accumulator with water need take place only monthly at intervals. This is accomplished with the aid of a water-feed regulating valve. Moreover, when we speak of the complete charging or discharging of the heat accumulator, the variation in the water level, that ensues, amounts

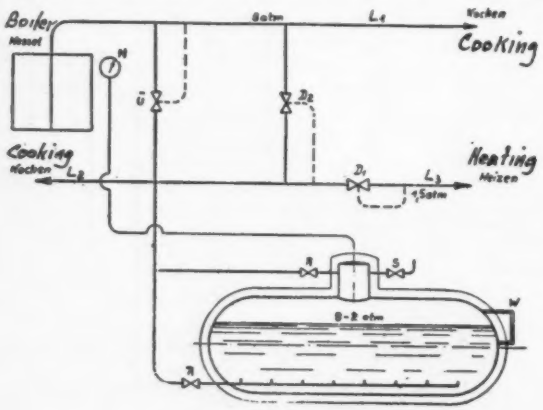


FIG. 5

The Heat Accumulator in a Steam Line.

to only about 20 to 30 centimeters at all times and under all sorts of conditions.

One or two safety valves, an air valve, mud blow-off cocks and the regular man-holes and hand-holes complete the equipment of the apparatus.

### Means of Supporting the Ruth Apparatus

Smaller sizes of apparatus are placed on boiler supports in the same way as in the setting of fire tube boilers. In the case of larger sizes of heat accumulators the support is accomplished by the aid of four strong lugs or flanges which are built into the body of the apparatus at suitable points in its circumference. Only one of these supporting flanges is made fast to the concrete foundation. The other three are allowed to rest on the concrete columns with complete freedom of motion, so as to allow for expansion or contraction due to heat.

### Heat Accumulator with Superheating of the Discharged Steam

Even when superheated steam is fed into the heat accumulator, it always yields only saturated steam. The superheat, that is present

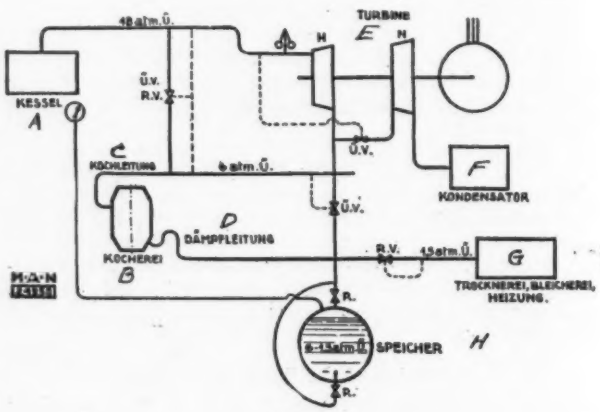


FIG. 6

Diagrammatic Arrangement of the Ruth Heat Accumulator in a Paper Mill. A, Boiler; B, Digester Plant; C, Digester Piping; D, Steam Piping; E, Turbine; F, Condenser; G, Drying, Bleaching and Heating; H, Heat Accumulator.

in the superheated steam, can be removed, when the steam is passed through a heat accumulator, which is constructed in accordance with the type of construction used in the Siemens regenerator or the Cowper apparatus. The superheat heat is then yielded up to the iron filling within the apparatus. The steam, that is discharged from the heat accumulator, may then pass through the generator, that is either all of the steam or only a certain part of it, and in this way the heat in the regenerator is absorbed once again in quantities that may be easily controlled.

### 3. The Location of the Ruth Heat Accumulator on the Steam Line

The simplest manner of locating the Ruth heat accumulator in the steam line is seen in Fig. 5. In this case the heat accumulator is connected in parallel with the steam line, in whose piping length $L_1$ the variation in the steam demand is very great. The Ruth apparatus is connected with the boiler through the steam overflow valve U, which opens at very slight rise of pressure, which takes place, as soon as the production of steam is greater than the total requirements demand. In the reverse condition the steam overflow valve closes and the total steam production of the boilers is then available for the steam main $L_1$, while the mains $L_2$ and $L_3$ are fed by the steam accumulator through the steam pressure reducing-valve $D_1$. Consequently the heat accumulator manometer forms the sole indication of the course taken by the processes occurring within the steam line and also the sole means of occasional regulation of the heating. The necessity of doing the latter arises in the case of a heat accumulator, which has been properly dimensioned so as to meet the requirements of the line in which it is inserted, only when the steam consumption exhibits unusual irregularity, to equalize which there would be required so large a heat accumulator that it would be uneconomical to operate the same under ordinary operating conditions and moreover it

would have a very bad efficiency except when the extraordinary conditions set in.

### Installation with Steam Lines of Different Pressures

The case of the installation, in which power requirements and heat requirements must be met through one steam power line which is connected with one or more steam heat lines of different pressures, is of much more importance.

In this case efforts are always made to have the pressure drops between the steam boiler pressure and the pressure or pressures in the apparatus, consuming steam for heating purposes approach the performance of work in the energy producing machines, whether they be steam engines or turbines. The accumulator in this case is connected advantageously to one of the exhaust steam pipes or between two such pipes in such a manner that it can absorb the excess steam from the high pressure line and shut off from the low pressure piping leading from the steam boiler, as soon as the steam demand increases in the high pressure line. Then the entire work of the boiler is available for taking care of the demands in the high pressure steam line. This arrangement presupposes in all cases that the steam consumption in the low pressure line is at least as large as that quantity of steam as that quantity by which the maximum consumption in the high pressure line exceeds the constant steam production. If the latter is designated by the symbol *d* kilograms per hour,, the aforementioned maximum steam consumption by the symbol D, then D-d kilograms per hour at least must be removed from the steam accumulator, if no change is to be made in the boiler house. (D-D-d d).

### Regulation Devices

Special regulating devices are provided at the power-producing machinery and at the overflow valves, which allow the excess of steam to flow towards the heat accumulator and which receive their regulation from either the exhaust steam pipes or the steam lines leading to the turbine nozzles or from the boiler main itself. These regulating devices provide for the automatic co-operation of the power-producing machinery and the machines that utilize the heat in the steam. Figure 6 illustrates a way in which the heat accumulator may be connected up with other apparatus in a paper mill.

### The Arca Regulatory System

In case the power-producing machine, which acts as a steam pressure reducing valve, fails to operate or is more or less strongly discharged, there are provided special steam pressure reducing valves, which prevent the steam being fed directly from the boilers into the lines, carrying the steam to the heat consumers, when the power-producing machines are shunted off the steam line. In this case as well the heat accumulator fulfills its purpose of equalizing and improving the operation of the boiler. The pressure reducing and excess pressure valves must operate in a certain series and must be regulated so that they respond to fine differences in pressures. From the standpoint of a single range of pressure regulation for all these valves, it is recommended that all these valves be combined as much as possible at one point, as the installation at points, far separated from one another, is very bad and inconvenient. (Fig. 7 shows the device used to combine all the instruments in one place so that their regulation is comparatively simple).

The actuation of the individual valves is accomplished indirectly; in Sweden the so-called "Arca regulator" is used to bring this about. A diagram of this system of regulation is shown in Fig. 8. The principle of the system is as follows. A bourdon tube with a barometric box or a membrane is inserted in the lines, controlled by the excess pressure or pressure reducing valves. The change in the form of this membrane, which results due to the pressure existent in the lines, serves to actuate a needle or flap valve, which allows more or less liquid to emerge from the pressure line of a water or oil pump, which is operated at a speed which is kept as uniform as possible. Consequently the pressure, which exists in the pressure line, is changed in accordance with the position of the outlet valve, and these differences in pressure now act on a relay, a simple or compound membrane, which moves a small regulating piston. This allows water or oil under pressure to stream out of the same pressure line to the topside of a simple acting power piston or to flow off from that device. The movement, which is caused to take place in the power piston in this manner, is finally transmitted to the regulating spindle of the excess pressure or pressure reducing valve through a link provided with a tension weight. Inasmuch as in the presence of several relays all are affected at the same time by the change in pressure in the line

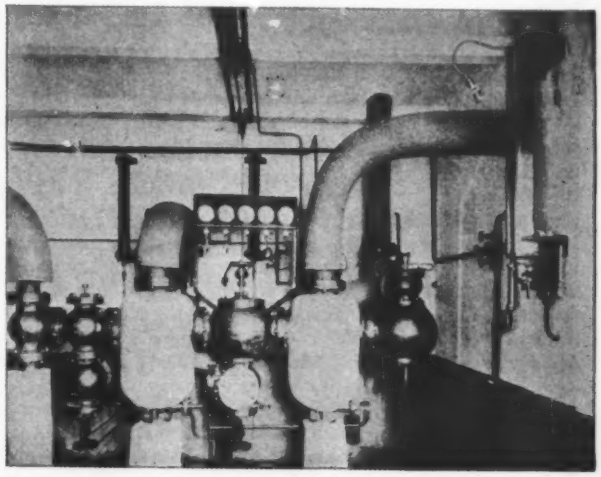

FIG. 7
Regulating Board.

leading from the pumps then the motion, which is induced by the regulatory action, of one or several others is of such a nature that the regulation of the individual steam lines is always accomplished in the correct manner. The parallel interconnection of the regulating impulse and the regulating movements, which is accomplished in this manner, results therefore in a regulatory action which is extraordinarily sensitive and accurate. Changes in pressure in the pump lines, for example due to a variation in the speed of the pump, are, as may be easily proven, without any influence on the correct actuation of the regulatory valve.

### 4. The Use of the Heat Accumulator in Paper Mills and Practical Results Obtained in Its Operation

The heat accumulator is indicated for application in all places, where the steam demand is subject to more or less great variation, where the production of steam takes place in an irregular manner, or both conditions exist at one and the same time. The Ruth heat accumulator permits absolutely uniform operation of the boilers with a high efficiency, the transition to industrial boiler systems and to the utilization of the reduction in heat in power-producing machines, and because of its constant preparedness to furnish steam, an increase in the production and an important diminution in the area of heating surface which must be made available in the operation of the boiler.

The chemical industry, the textile and foodstuff industry, metallurgical plants and power plants, and paper mills are all subject to the condition of variable steam demand. (Curve sheets are given to show how greatly the demand of steam can vary in paper mills.) The results shown are determined partly by observation and partly by calculation. In paper mills the variation in the steam consumption can be calculated with a degree of accuracy that yields results, which are a very close approximation to the actual.



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At the same time it is possible to consider increase in the operations or to easily accomodate oneself to the condition that after the heat accumulator has been built into the line the time of cooking can be shortened by a diminution of the time of steaming and of bringing the digester up to pressure, as there is no longer any lack of steam. The steam consumption curve becomes in this way more subject to change, but the steam production remains constant, as in all cases, where the steam consumption is greater than the steam production or vice versa, the heat accumulator springs into the breach and exerts its beneficial action.

### Practical Experience with the Ruth Heat Accumulator

(Various diagrams are given in the original article, illustrating actual practical operation of the Ruth heat accumulator and the effects produced by its use in paper mills. These curves are indicative of Swedish practice and experience with this machine. In one case the boilers were fired with wood and with gas. The carbon dioxide in the flue gases was determined both before and after a Ruth heat accumulator had been installed. The variation in the amount of carbon dioxide in the flue gases before the Ruth apparatus was installed was very great, indicating very irregular firing, but after the heat accumulator had been installed, these variations were markedly reduced.)

Other curves are given in the article, showing the effect of the Ruth apparatus on the variation in the temperature and of the steam and in the pressure at the boiler. Without the Ruth apparatus the variation in the boiler pressure was very marked but the operation with the heat accumulator in the installation was very regular. A curve is also given to illustrate just how the pressure within the Ruth heat accumulator varies as the apparatus receives and discharges steam. During the steaming period, when large quantities of steam are removed from the heat accumulator and passed through an open digester filled with wood chips, demands are made upon the Ruth apparatus, due to the sudden load, that could never be met by the boiler itself. The Ruth heat accumulator permits this steaming to be done at a much increased speed, similarly the operation of bringing the mass up to a boil is hastened, so that the time of digestion is reduced by about 20 per cent.

### Possibilities in the Discharge of Steam

In the case considered above, there results at one point a reduction in pressure, due to the steaming of the apparatus, amounting to 3.4 atmospheres within a period of 18 minutes. The pressure was reduced from 8.4 to 5.0 atmospheres. When the volume of water in the heat accumulator is approximately 150 cubic meters, the heat accumulator delivers 5,000 kilograms of steam under these conditions or at the rate of 16,700 kilograms of steam per hour. In a curve there is indicated a very abrupt discharge of steam from a heat accumulator. The steam discharge amounts to 33,000 kilograms of steam per hour at a certain point. The heat accumulating apparatus, in this case, has a capacity of only 86 cubic meters and a large steam-discharging water surface of 25.5 square meters. The maximum value of the steam discharge per square meter of water surface is approximately 13,300 kilograms per hour, the average value during the steaming period is about 210 kilograms per hour. The discharge takes place without shock and without noise. It has been proven by experimental investigations that the largest Ruth heat accumulators, which have been built up to the present time, will afford a steam discharge up to a maximum of 100,000 kilograms per hour, which means that within a period of 5 to 10 minutes they can be completely discharged, without the steam becoming moist in any appreciable degree.

### Improving and Lowering the Cost of Boiler Operation

It is a fact derived from experimental observation that boilers which operate under the condition of varying load, even though they yield efficiencies of 70 to 80 per cent in the original tests, do not average an efficiency of over 50 to 60 per cent in continuous operation. In contradistinction thereto when the boiler is operated with the heat accumulator in the steam line, the operating conditions are so regular, as may be seen from the regularity of the firing, of the steam pressure and of the temperature, that they approach those under which the original test was made. It is claimed that there are plants in Sweden, which operate their boilers in conjunction with one or more Ruth heat accumulators and which attain an efficiency of 80 per cent and more with their boilers.

The report that the saving in fuel, which has been attained in many paper mills in that country, which have installed heat accumulators, amount to from 15 to 23 per cent, brought about only through the improvement in the efficiency of the boilers, corroborates this statement. In a period of one to one and one-half years the initial cost of the Ruth heat accumulator has been paid for out of

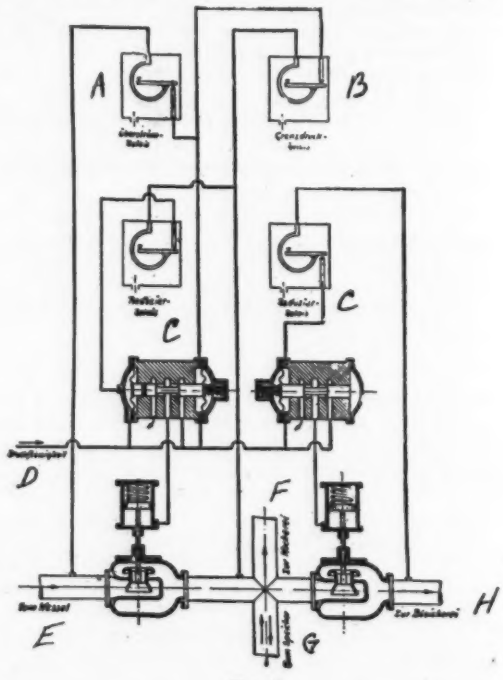


FIG. 8

Air Regulating System. A, Excess Flow Relay; B, Limiting Pressure Relay; C, Reducing Relay; D, Pressure Liquor; E, From Boiler; F, to Digesters; G, to Heat Accumulators; H, to Bleaching Plant.

the increased efficiency and savings in boiler plant operation that it has afforded. One of the best examples of the effectiveness of the Ruth apparatus is to be found in the plant of A. B. Kaukas in Wilmanstrand, Finland. (The author of this article saw this plant in operation). This plant possesses the largest heat accumulator, built up to the present time. The diameter of the apparatus is 5.0 meters, the length 19.5 meters and it has a capacity of 345 cubic meters. The accumulator load is 12,000 kilograms of steam. The plant operates four Babcock and Wilcox boilers, each possessing 393 square meters of heating surface (run by four firemen), while before the heat accumulator was installed 20 fire tube boilers, run by 70 firemen, were required to furnish steam to run the plant. The new installation works continuously with an efficiency of 83 per cent.

### Statement by Mr. Dodge

The following statement was made by Philip T. Dodge, president of International Paper Company at annual luncheon of News Print Service Bureau, November 16, 1922.

"Before we part, I think perhaps I should say a word about one thing which we discovered in Europe that I think is of very great importance to every paper manufacturer, of importance in every industry where there is a large and variable steam consumption.

They are being rapidly introduced in England, and we visited at least a dozen plants, not only paper plants but other industrial plants where steam was used, introducing what is known as the Vapor or Steam Accumulator. It has been tried on a very small scale in a crude way in one place in this country. It has been highly developed on the other side.

I saw the books of one concern the fuel bills of which have been reduced 15 per cent through the installation of this apparatus.

It is of the most simple character. There is nothing about it but a great tank filled to about nine-tenths of its capacity with water, so thoroughly insulated that it is cold on the outside no matter what the temperature may be on the inside. Whenever they have an excess of steam—when, for instance, in a sulphite plant, you have ceased to use steam in your digesters and your boilers are running on, you simply turn this steam into this great accumulater and the heat is absorbed by the water.

You may build your boiler plant to minimum capacity. You need never bank your fires. Whenever the consumption of steam falls away, you turn the surplus into this accumulater. It means that your steam plant of minimum size can be run constantly day and night and up to its maximum capacity and on the most economic lines. It is a very great thing.

I am going to say without any hesitation we are going to put them into at least one of the International mills at once, and I think into others. The representatives of that equipment are to be in this country soon if they are not already here. Those of you who use steam in variable quantity as between different hours of the night and day or even between different days ought to find this of great value. In one case that steam laid dormant, so to speak, for three weeks, and practically all of it was recovered; there was a loss of only about two per cent. When that thing is presented to you, give it pretty careful consideration, gentlemen."

# CURRENT PAPER TRADE LITERATURE

## Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Pulp and Paper Industry

### Properties, Chemistry and Testing of Raw Materials and Finished Products

**Paper Making Qualities of Some Indo-Chinese Woods.**—*Papier*, xxv, 463-464 (Oct., 1922).—According to Heim and O. Roerich *gao* gives 30% of light brownish red, easy bleaching pulp, which is homogeneous and contains very few non-fibrous elements. The average fiber length is 2 mm., tensile, tearing and crumpling strengths are satisfactory. The pulp is quite suitable for the manufacture of ordinary grades of paper. *Seu* gives 34% of a light yellow unbleached pulp, which is homogeneous and contains but few non-cellulosic cells and vessels. Average fiber length 1.7 mm. The tensile, tearing and crumpling strengths are exceptionally high. The pulp is suitable for the manufacture of ordinary grades of paper. *Vai* gives 40% of light brown, slightly rose-colored, unbleached pulp, which is homogeneous and contains very few non-fibrous elements. The tensile, tearing and crumpling strengths are rather poor. It could be used in admixture with other pulps. *Vang-chung* gives 34% of a light brownish-yellow, easy bleaching pulp which has satisfactory tensile, tearing and crumpling strengths. It can be used either alone for the manufacture of common grades of paper, or in admixture with other pulps.—A. P.-C.

**The Chemistry of Wood. V. Results of Analysis of Some American Woods.**—G. J. Ritter and L. C. Fleck, Forest Products Lab., Madison, Wis. *J. Ind. Eng. Chem.*, xiv, 1050-1055 (Nov., 1922). Complete analyses are given of the woods of western yellow pine (*Pinus ponderosa*), yellow cedar (*Chamæ cyparis nootkatensis*), incense cedar (*Libocedrus decurrens*), tanbark oak (*Quercus densiflora*), redwood (heartwood) (*Sequoia sempervirens*), mesquite (*Prosopis juliflora*), balsa (*Ochroma lagopus*), and shellbark hickory (*Hicoria ovata*); and results previously obtained at the Forest Products Lab. are retabulated along with the new data for purposes of comparison. In the discussion of results the authors show that the alpha-celluloses isolated from the various woods are not the same chemically, as is claimed by some investigators. Comparing the methoxy and lignin contents of redwood and live oak, it appears that the composition of lignin in the two species is uniform from the standpoint of the methoxy content. If this uniformity holds in all woods, then the methoxy not associated with the lignin must vary. It is suggested that this may explain the difference in yields of methanol from hardwoods and softwoods on destructive distillation.—A. P.-C.

**Distribution of Methoxy in the Products of Wood Distillation.**—L. F. Hawley and S. S. Aiyar, Forest Products Lab., Madison, Wis. *J. Ind. Eng. Chem.*, xiv, 1055-1057 (Nov., 1922.) Methoxy groups in wood are the source of the methanol obtained by destructive distillation, but only 16 to 30% of the methoxy goes to form menthanol. The article describes the search for the other 84 to 70% methoxy in the crude products of distillation of maple, oak and incense cedar. The changes in the distribution of the methoxy when the wood is treated with sodium carbonate or phosphoric acid before distillation are also described.—A. P.-C.

**Hydrophyte Cellulose.**—*Svensk Pappers Tidning*, xxiv, 459-460 (1921); *Chem. Abs.*, xvi, 4058 (Nov. 20, 1922). The preparation of paper pulp from such hydrophytes as reed, etc., is recommended. Illustrations are given showing the character of the fibers.—A. P.-C.

**Andropogons as Paper Making Materials.**—Ch. Groud. *Papier*, xxv, 446-449 (Oct., 1922). Results are given of tests carried out at the French School of Papermaking at Grenoble. *Imperata arundinaceæ* from Indo-China, containing 14% of moisture when air-dry, was charged into a spherical digester in 4 to 5 cm. lengths, slightly washed, steamed for one hour under low pressure, and cooked for seven hours with 13% of caustic soda as a 5° Bé. liquor, under 3 to 3.5 atmospheres. The grass contained 42% of cellulose, and the yield of bleached pulp, using 16% of bleaching powder, was 31%. The paper was of a fine white color, thickness 0.11 mm., weight 80 g. per square meter; breaking length, machine direction 3,166 m., cross direction 2,000 m., average 2,583 m.; bursting strength 1.130 kilos. The cellulose is fine and fibrous, fiber length 1 to 3.5 mm., average 1.8 mm., average diameter 0.01 mm., felting power 1/180. The fibers are regular, cylindrical, with sharp and elongated ends. The lumen is small and the walls fairly thick. There are a few longer and stronger fibers (3 mm. long and 0.012 to 0.015 mm. diameter, and various cells similar to, but smaller than, those found in straw pulp, which are largely eliminated in the washing. The pulp is suitable for the manufacture of fine papers (printing, ledger), either alone, or preferably mixed with wood, rag or bamboo pulps. Leaves (containing a few fragments of stems) of *Andropogon muricatus* were lightly crushed between rolls, put through a straw-cutter, and cooked: (1) with 7% of caustic soda as 4°Bé. liquor under 3 atmospheres, for 4.5 hours, which gave a decidedly greenish material; (2) with a 3° Bé. sulphite liquor, for 4.5 hours, under 3 atmospheres, which gave a light yellow product. The digested material was defibered and bleached with bleaching powder. Yield 35%. The paper obtained was of fairly good quality, white, opaque, but not very strong. The fibers are 1.5 to 2 mm. long, and 0.010 to 0.015 mm. in diameter, felting power 1/150. The fibers are regular, cylindrical, elongated, with fairly thick walls, and lumen about one-third the diameter of the fiber. There are numerous and varied non-fibrous elements, which are largely eliminated in wash-



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ing; but the finished pulp still contains about 20%, which accounts for the low strength.—A. P.-C.

**Nature, Treatment and Qualities of Straw Pulp.**—E. Arnould. *Papier,* xxv, 433-435 (Oct., 1922). Brief general review of the subject.—A. P.-C.

**Pulp from Reed (Arundo Phragmites).**—H. and C. Branco. Can. patent 224,357, Oct. 3, 1922. The reeds are treated with malt and then fermented, and alcohol and other by-products are recovered. The residue is disintegrated for the production of mechanical pulp or treated with weak caustic soda below 100° C. for the production of chemical pulp.—A. P.-C.

**Testing the Degree of Digestion of Wood Pulp.**—H. Roschier. *Pappers och Trävarutidskrift; J. Soc. Chem. Ind.,* xli, 746A (Oct. 16, 1922). The rate of reduction of permanganate under standard conditions is proposed as a rapid approximate measure of the degree of digestion of wood pulp and is particularly applicable for mill control. A one-hundredth normal solution of potassium permanganate is most suitable; it must be kept neutral and acidified just before use. Two g. of finely rasped wood pulp, or 6 g. of moist pulp squeezed out in the hand, is weighed and rolled into a loose ball. Eighty cc. of permanganate solution is placed in a 300 to 400 cc. glass-stoppered bottle, 1.6 cc. of normal sulphuric acid added, the ball of pulp is dropped in, the stopper is inserted and a stop-watch is started. The bottle is shaken slowly and uniformly by hand and the liquid is kept under observation by slightly tilting the bottle. Immediately the red color of the permanganate is discharged, the time in seconds is noted. A standard temperature of 20° C. is maintained, as the rate of discharge is greatly influenced by differences in temperature. The following grades have been established: Easy bleaching pulp, 70 secs.; slowly bleaching, 50 to 70; medium strong, 35 to 50; ordinary strong, 25 to 35; very strong and hard, 25. The values have been co-ordinated with the chlorine absorption values determined by Sieber's method.—A. P.-C.

**The Theory of Color.**—*Leather Trades' Rev.; Pulp and Paper,* xx, 973-975 (Nov. 9, 1922). A brief popular discussion of the theory of color, showing more particularly the differences between pigment colors and colored light rays and the blending of primary colors (both pigment and light rays) to make all known colors.—A. P.-C.

**Report on Folding Tester.**—Helen U. Klely, American Writing Paper Co. *Paper Ind.,* iv, 1129-1131 (Nov., 1922). The author discusses the results obtained from collaborators working on twelve machines (results of the tests not given) and concludes that it seems that if the strips are carefully cut and humidity carefully controlled the folding machine has a distinct value and results from one laboratory should agree very closely with one another. It cannot be concluded that there is any difference between the old folding machines and the new machines now being put out in the United States. It is recommended that the work be continued.—A. P.-C.

**Determining the Tensile Strength of Paper.**—Raymond Fournier. *Papier,* xxv, 437-440 (Oct., 1922). The author, after briefly discussing the shortcomings of the instrument generally used for measuring the tensile strength of paper (Schopper), advises using a machine which could take much wider test strips, e. g., 15 cm. instead of 15 mm. This would necessitate the use of forces up to about 300 kilos, and Schopper type instruments of this capacity would be too heavy, cumbersome and expensive. The author, therefore, briefly sketches (diagramatically) a simple and efficient hydraulic type of instrument which he considers suitable, in which the tension is exerted by means of a piston which is displaced by screwing a rod into the cylinder carrying the piston.—A. P.-C.

**Saccharification of Cellulose.**—P. Budnikow and P. W. Solotarew. *Ber. Polyt. Iwanowo-Wosniessensk* iv, 119-128 (1921); *J. Soc. Chem. Ind.,* xli, 745A (Oct. 16, 1922). In the fermentation of glucose obtained by the action of acid on cellulose it is advantageous not to neutralize completely the excess of acid before addition of the yeast. By this method 85% of the theoretical amount of alcohol was obtained from paper, but a smaller yield was obtained when caustic soda instead of calcium carbonate was used for neutralizing. The sulphuric acid can be recovered electrolytically with a consumption of about 7.215 kilowatts per kilo of acid recovered. With carbon electrodes there is a slight loss of acid and of glucose.—A. P.-C.

### Wood Preparing and Equipment

**Strong, Quick Cook, Hemlock Sulphite.**—L. E. Smith, Nekoosa-Edwards Paper Company. *Paper Ind.,* iv, 1086-1087 (Nov., 1922); Paper Trade J., lxxv, No. 19, 53-54 (Nov. 9, 1922); *Paper Mill,* xlv, No. 44, 1, 4, 6 (Nov. 11, 1922); *Paper,* xxxi, No. 5, 7-9 (Nov. 22, 1922). A description of the precautions which must be taken in order to obtain good results, covering cleaning and barking, chipping, cooking and screening. Figures obtained on chipping tests are given, which show that with proper conditions a proper chip can be made in the chipper without the use of rechipper, crusher, or screen.—A. P.-C.

**Waste in the Pulp and Paper Industry.**—B. T. McBain, Nekoosa-Edwards Paper Company. *Paper Ind.,* iv, 1085-1086 (Nov., 1922); Paper Trade J., lxxv, No. 19, 51-52 (Nov. 9, 1922); *Paper Mill,* xlv, No. 44, 10, 12 (Nov. 11, 1922); *Paper,* xxxi, No. 4, 7-9 (Nov. 15, 1922). Brief sketch of the wastes which occur in the wood yard, wood room, groundwood, sulphite and paper mills.—A. P.-C.

### Acid Processes of Pulp Manufacture and Equipment

**Fertilizer from Sulphite Waste Liquor.**—Zellstoffabrik Waldhof. Eng. patent 179,151, April 1, 1922. A fertilizer is obtained by causing a reaction of sulphite waste liquor with matter adapted to combine with the water of the liquor. Quicklime or a mixture of quicklime and magnesia is suitable. Hot concentrated liquor is preferably used and peat dust may be added to the mixture. The product is ground for use and fertilizing agents such as phosphates or potash salts may be added either before or during grinding.—A. P.-C.

**Sulphur Burner.**—A. G. Hinzke. Can. patent 218,359, May 9, 1922. Same as U. S. A. patent 1,410,061, March 21, 1922. See this journal, lxxiv, No. 20, 55 (May 18, 1922).—A. P.-C.

### Alkaline Processes of Pulp Manufacture and Equipment

**Use of Chlorine in the Manufacture of Paper Pulp.**—C. Ardisson de Perdiguier. *Papeterie,* xliv, 866-873 (Oct. 10, 1922). Polemical against Pomilio. (See this journal, lxv, No. 16, 54, Oct. 19, 1922.) The author claims that, owing to the high consumption of chlorine, the Cataldi process is of no interest outside of Italy, where there is a good market for caustic soda with little or no outlet for chlorine; and that the pulp produced by this process is not of a quality suitable for the manufacture of fine papers.—A. P.-C.

**Manufacture of Bleached Cellulose.**— *World's Paper Trade Rev.; Paper Mill,* xlv, No. 42, 48 (Oct. 28, 1922). Brief outline of the DeVains process.—A. P.-C.

### Pulp Treatment and Drying—Operation and Equipment

**Operation of Flat Diaphragm Screens.**—Harry Williamson. *Paper Ind.,* iv, 1071-1074 (Nov., 1922). A description of the proper operation and cleaning of diaphragm screens.—A. P.-C.

### Bleaching, Bleach Manufacturing and Equipment.

**Determination of Available Chlorine in Chlorine Bleaching Compounds.**—F. Dienert and F. Wandenbulcke. *Ann. Fals.* xv, 338-339 (Sept.-Oct., 1922). Dilute 1 cc. of the bleaching solution to 1 liter, add 2 g. of ammonium sulphate, shake, and add a few crystals of potassium iodide and some starch solution. Titrate the liberated iodine with an alkaline arsenic solution, 1 cc. of which is equivalent to 1 mg. of available chlorine. The ammonium sulphate prevents the formation of iodate. The method was compared with



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those of Penot, Poncius, and Gay-Lussac, and all of them gave about the same results, Poncius' method always giving slightly higher results than the others. Especially with low chlorine contents, Poncius' method gives high results, depending on the rate of addition of the potassium iodide solution, because the reaction between potassium iodide and potassium iodate does not take place immediately. Penot's method is not suitable for very dilute solutions.—A. P.-C.

**Method of Bleaching Pulp.**—Geo. M. Trostel. Can. patent 224,290, Oct. 3, 1922. The pulp is collected on a vacuum filter to bring it to a high consistency and is then saturated with bleach liquor at 170 to 180° F., the consistency at this stage being as high as 18 to 20%. Bleaching is usually complete in about 7 to 15 min. The excess of bleach is removed by vacuum and air is drawn through the pulp to facilitate the oxidizing action. The bleaching may be carried out either in one or two stages.—A. P.-C.

### Paper Manufacturing and Equipment

**Beater Room Efficiency.**—Richard Clayton. *Paper Ind.* iv, 1050 (Nov., 1922). Very brief discussion of the importance of keeping beating equipment in good condition, and of the importance of the personal factor in accomplishing this.—A. P.-C.

**Removing Coloring Matter from Paper Stock.**—E. Angier. Can. patents 224,551, 224,552, Oct. 10, 1922. No. 224,551.—The thoroughly pulped stock is treated, in the proportion of 160 lb. per ton of stock, with a mixture of one-third sodium carbonate (sal soda, $Na_2CO_3.10H_2O$) and two-thirds sodium carbonate monohydrate ($Na_2CO_3.H_2O$) at 130° F. for 20 min. No. 224,552.—The pulped stock is treated, in the proportion of 160 lb. per ton of stock, with a mixture of approximately equal parts of sodium sesquicarbonate ($Na_4H_2(CO_3)_2.3H_2O$), sodium carbonate (sal soda, $Na_2CO_3.10H_2O$), and sodium carbonate monohydrate ($Na_2CO_3.H_2O$), at 130° F. for 20 min. Slaked lime, borax, and calcium acid sulphide can be used as substitutes.—A. P.-C.

**Wear of Paper Machine Wires.**—J. M. De Portemont. *Papier* xxv, 435-437 (Oct., 1922). A brief description of the function of warp and filler in paper machine wires, of the more generally used weaves, and of the normal wearing out of a wire.—A. P.-C.

**Paper Roll Bushing.**—H. L. Mumm. Can. patent 224,613, Oct. 10, 1922. The bushing has an annular enlargement which maintains it in the opening in the roll of paper and thus prevents it from being accidentally lost.—A. P.-C.

**Slitter and Transverse Cutter for Impregnated Roofing Paper.**—H. A. Cumfer assignor to Guyton and Cumfer Mfg. Co. Can. patent 224,656, Oct. 10, 1922.—A. P.-C.

**Machine for Catching Paper from Cutters.**—L. La Veck assignor to Simplex Paper Accessories Co., Inc. Can. patent 224,334, Oct. 3, 1922.—A. P.-C.

**Manufacture of Millboard from Tanyard Refuse.**—A. T. Masterman. Eng. patent 182,884, April 6, 1921. Waste wattle bark or other tanyard refuse is crushed for 20 to 30 min. in an edge-runner in the presence of a solution of sodium carbonate or other alkali, and then after admixture with about 20 to 30% of waste paper pulp, is beaten for 2 hours with water at 45 to 50° C. Engine size and alum, or gelatine alone, are added to the pulp during the beating, and after leaving the beater the pulp is manufactured into board by hand or in machines.—A. P.-C.

**Carbon Paper.**—S. E. Schuer. U. S. A. patent 1,377,368, May 10, 1921; Can. patent 224,628, Oct. 10, 1922. The paper is coated with a composition consisting of soft soap and soot, and may be suitably smoothed or burnished.—A. P.-C.

**The Manufacture of So-Called "Antaimoro" Paper.**—Colancon. *Bull. Economique de Madagascar; Papier* xxv, 460-461 (Oct., 1922). A brief description of the method used by the Antaimoro (a Madagascar tribe) at least as early as the middle of the Sixteenth century for making paper from "avo" ("havoha," "avoho") bark.—A. P.-C.

**The Manufacture of Blotting Paper.**—E. Arnould. *Papier* xxv, 449-450 (Oct. 1922). Brief notes of a very general nature.—A. P.-C.

### List of Abbreviated and Full Titles and of Addresses of the Journals From Which Abstracts Have Been Prepared for This Issue

| | |
|---|---|
| Ann. Fals. | Annales des Falsifications et des Fraudes. Mr. Filaudeau, 42b, rue de Bourgogne, Paris (7°), France. |
| J. Ind. Eng. Chem. | The Journal of Industrial and Engineering Chemistry. H. E. Howe, 810 Eighteenth St., N. W., Washington, D. C. |
| J. Soc. Chem. Ind. | Journal of the Society of Chemical Industry. Central House, 46 and 47 Finsbury Square, London, E.C. 2, England. |
| Paper Ind. | The Paper Industry. 356 Monadnock Block, Chicago, Ill. |
| Paper Mill | The Paper Mill and Wood Pulp News. L. D. Post, Tribune Building, 154 Nassau St., New York City. |
| Paper Trade J. | Paper Trade Journal. 10 East Thirty-Ninth St., New York City. |
| Paperterie | La Paperterie. 9 Rue Lagrange, Paris (5°), France. |
| Papier | Le Papier. 16 Rue du Rocher, Paris (8°), France. |
| Pulp and Paper | Pulp and Paper Magazine of Canada. Gardenvale, Que. |
| World's Paper Trade Rev. | The World's Paper Trade Review. Stonhill and Gillis, 58 Shoe Lane, London, E. C. England. |

## Westinghouse Achievements in Paper

In a review of engineering achievements by the Westinghouse Electric and Manufacturing Company, by H. P. Cope, assistant director of engineering. The following is mentioned regarding paper:

"Important progress has been made in the improvements and simplification of the control and regulating equipment used for sectional paper machine drive. These equipments have fully proved their great value to the paper industry during the year and others are in process of construction.

"A new system of paper calender drive and control has been perfected, involving the application of the company's new commutator type frequency changer. Paper calenders in the past have been driven by one main motor, usually of the wound rotor type, with a small motor for threading in. Heretofore, the combination of these two motors required reduction gear units, gear shifts, friction clutches, etc. to make possible the connecting of either one or the other of the motors to the calender and in other instances, an adjustable speed direct-current motor and an adjustable voltage DC generator for providing both the threading in and the operating speeds. Both of these methods required expensive equipments which have now been greatly simplified, as the new system Westinghouse engineers have developed simply involves the use of the wound rotor type induction motor with a standard frequency bus from which the motor operates under production speed, and a low frequency bus of about 6 cycles supplied by the frequency changer on which the motor operates when threading in. This equipment also gives a very smooth acceleration with a uniform threading in speed."

## Canada May Export Soapstone

Consul Dudley C. Dwyer, Fort William, Ont., has forwarded to the Iron and Steel Division of the Department of Commerce an announcement of the organization, with a capital of $500,000 and with head office at Toronto, of the Wabigoon Soapstone Co., Ltd., to mine soapstone in the Wabigoon district which is located about 200 miles northwest of Fort William.

The company is said to own one of the largest soapstone deposits known and it is claimed to be the only deposit in Canada that can be worked commercially. It is believed that this deposit can be profitably worked to supply not only the Canadian demand but also for export. Samples of the soapstone are reported to be of a greenish color, easily worked and of excellent quality.

The development of the industry will be of interest to the pulp and paper companies who use this stone for lining kraft mill furnaces and pulp digestors.



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# PLANS OF THE COMMITTEE ON ABSTRACTS AND BIBLIOGRAPHY, T. A. P. P. I.

By Clarence J. West, Chairman.

At the fall meeting of T. A. P. P. I., the Executive Committee voted to combine the Committees on Abstracts and Bibliography because of the closely allied interests of the two committees. After a careful survey of the field and consultation with various members of the Association, your chairman wishes to present the following outline and plans of the work of the new committee.

In so doing it should be remembered that there are two fundamental factors to be considered. The first is that the abstracts are for information and reference purposes; an article which appears in the abstract section should have a definite relation to pulp and paper manufacture. Sufficient data should be given to indicate the nature of the article, but full details cannot be expected. These can be obtained through the chairman of the committee.

The second, and equally important, factor is that the abstracts should be self supporting. Because this is not true at present, a certain modification of the existing plan is desirable. If, at a later date, the returns justify expansion, this can easily be carried out. For the present, therefore, it is proposed to reduce to a minimum abstracts relating to forestry, metallurgy, fuels, power, &c., both as regards magazine articles and patents. It is believed that the engineer will secure this information more completely through his engineering magazines than we can hope to give it to him.

### Abstract To Be Handled

*The following magazine will be regularly abstracted: Boxboard, Canadian Patents, Carbon Age. Cellulosechemie, Chemical and Metallurgical Engineering, Chemiker Zeitung, Chimie et Industrie, China Clay Trade Review, Commerce Reports, English Patents, French Patents, Fiber Containers, German Patents, L'Industria della Carta delle Graphiche, Japan Patents, Journal of Industrial and Engineering Chemistry, Journal of the Society of Dyers and Colorists, Journal of the Society of Chemical Industry, Mitteilungen aus dem königlichen Material prüfungsamt zu Berlin, Le Moniteur de la Papeterie Belge, Le Moniteur de la Papeterie Francaise, Paper Mill and Wood Pulp News, Paper Maker and British Paper Trade Journal, Paper Makers' Monthly Journal, The Paper Industry,* Paper Trade Journal, *Papier Industri, Papir-Journalen, La Papeterie, Le Papier, Der Papier-Fabrikant, Paper Container, Paper Making, Proceedings of the American Society for Testing Materials, Pulp and Paper Magazine of Canada, La Revue Universelle de la Papeterie, Svensk Pappers-Tidning, Swedish Patents, United States Paper Maker, United States Patents, World's Paper Trade Review, Wochenblatt für Papierfabrikation, Zeitschrift für angewandte Chemie, Zellstoff und Papier.*

### Other Material of Value to the Industry

Other material of value to the industry may be obtained by checking Chemical Abstracts, *The Journal of the Society of Chemical Industry*, etc.

Inasfar as possible abstractors will be assigned definite magazines. They will be requested to abstract all *original* material. Reprinted material will be abstracted only if the magazine from which the article is taken is not covered by the above list.

Because of the fact that articles in any one language are usually published in two or more magazines of the country in question, assignment of magazines will, in general, be by language or country. That is, all French magazines will be covered by one man; all German magazines by another, etc.

The greatest difficulty will be met in the case of American and English magazines. Abstractors in charge of these magazines will in general be able to distinguish English and American articles and thus avoid duplication.

It is desirable that references to all the places of publication of a given article be indicated in the abstract. Additional information will be added by the chairman of the committee. If this plan does not prove satisfactory, a system of assignments will be worked out by the chairman.

Translations of foreign articles into English should be reported by title and magazine reference only, with cross reference to abstract of the original article. It is also desirable that translation of Swedish articles into French or German be reported in the same way, but not of French into German, or *vice versa;* English into French or German, etc. That is, the abstracts are intended primarily for American use.

Other abstracts journals will be checked by the chairman of the committee. This will catch articles in miscellaneous, journals not covered by regular abstractors.

All abstracts will be forwarded to the chairman of the committee who will edit and classify them for publication. If possible the field of paper making will be divided into four approximately equal sections, one section being run each week. This will cover the field each month and will make it easier for readers to find a given section or field of papermaking literature.

### Index for Six Month Period

An index to all abstracts published during each six-month period (covered by a volume of Paper Trade Journal) will be prepared and published about a month after the close of each period. This will give ready accessibility to all paper making literature.

The plans of the bibliographic work will be continued as heretofore. Each year a classified bibliography will be prepared covering all the papermaking literature of that year. This will appear early in the following year, preferably in the Convention Number of the Paper Trade Journal and later in the *Technical Association Papers.* Beginning with 1923, a classified bibliography will appear each month in the Technical Association Section. This will render available foreign material within six weeks of its appearance.

The committee feels that the most important work at the present time is a complete index of all the past papermaking literature. This is being prepared, but the amount of time involved necessarily makes the task a time-consuming one, and no promise can be made as to the date of its completion. Meanwhile special bibliographies will appear from time to time. Those under way at present are: Beating, Electricity in the pulp and paper industry, Check list of paper periodicals, Pulp-paper testing, Chemical control in the paper industry.

## Litchfield Paper Co. to Expand

[From our regular correspondent.]

Frankfort, N. Y., December 9, 1922.—The Litchfield Paper Company, which for several years has been engaged here in the manufacture of toilet tissue, crepe and toweling, utilizing the former match factory buildings, has met with such success as to warrant it in largely increasing its facilities. The market for the finished product has become so enormous that the company has made arrangements for additional machinery to meet the demands as it is already running at a capacity production. In order to provide the funds for the enlargement of its plant the company is putting out a 7½ per cent first mortgage sinking fund gold bond issue of $100,000 in denomination of from $100 to $1,000.

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***LiftAbouts* are made on a quantity production basis and are sold at a price which you'll find much lower than you may have thought a good hoist would cost.**

**Let us place in your hands a descriptive bulletin, which will give you a good idea of the economies possible for you.**

**SHEPARD ELECTRIC CRANE & HOIST CO.**
**378 Schuyler Ave., Montour Falls, N. Y.**
**Branches in Principal Cities**
***Member Electric Hoist Mfrs.' Assn.***

SHEPARD
ELECTRIC CRANES & HOISTS

## Missisquoi Pulp and Paper Company

SHELDON SPRINGS VERMONT

White and Tinted Bristols—White Blanks—Index Bristol and Specialties in Card Boards.

## The Pulp and Paper Trading Co.

21 East 40th Street New York City

*DEALERS IN DOMESTIC CHEMICAL AND MECHANICAL PULPS AND PAPER*

AGENTS FOR

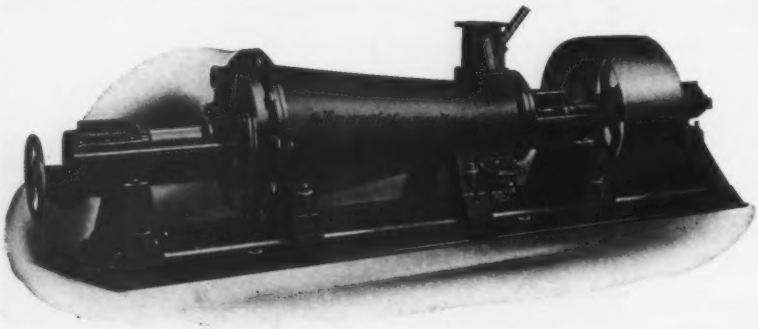
J. & J. Rogers Company, Ausable Forks, N. Y.

E. B. Eddy Co., Ltd., Hull, Canada

Canadian Kraft Limited, Three Rivers, Canada
Dealers in Wayagamack Kraft Pulp

Howard Smith Paper Mills, Montreal, Canada

EASTERN AGENTS of Sulphite Pulp.
Made by Port Huron Sulphite & Paper Co., Port Huron, Mich.



## EMERSON MFG. CO.

LAWRENCE, MASS.

See the Second-Hand Machinery ads and note the ABSENCE of

**EMERSON BEATING ENGINES**

They seldom wear out and are never thrown out. PERFECT CIRCULATION. NO "PADDLING."

**The "EMERSON" JORDAN**

does its work with half the power required by others of no greater capacity.

WRITE FOR DETAILS

## ROGERS WET MACHINE

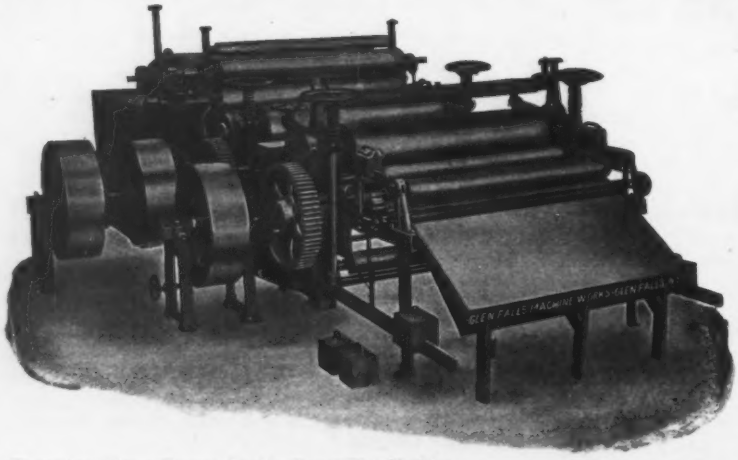


Illustration Shows Rogers Double Press Wet Machine

FOR CHEMICAL PULP—including Sulphite, Sulphate, Soda, also Cotton and Waste Paper fiber.

TYPES—Single and Double Press 72" wide.

CAPACITY—either type 25-30 tons air dry stock per 24 hours.

SHEETS produced by the Double Press Machine uniformly 48% dry. By the Single Press Machine uniformly 40% dry. There is no fold to contain excessive moisture. Sheets are handy size, 33"x36", and are folded once into most convenient bundles for storage, for the beater or for shipping. By this great capacity, high dry test, small amount of floor space per ton pulp produced, exceedingly low cost for labor and maintenance, users are assured that the machine will completely pay for itself within one year, and are promised a handsome return on their investment.

*WORKMANSHIP AND MATERIAL GUARANTEED*

**GLENS FALLS MACHINE WORKS Glens Falls, N. Y.**

*Try Our Split Cams for Your Flat Screens*

## Let Them Drink to your business health in cups you sell

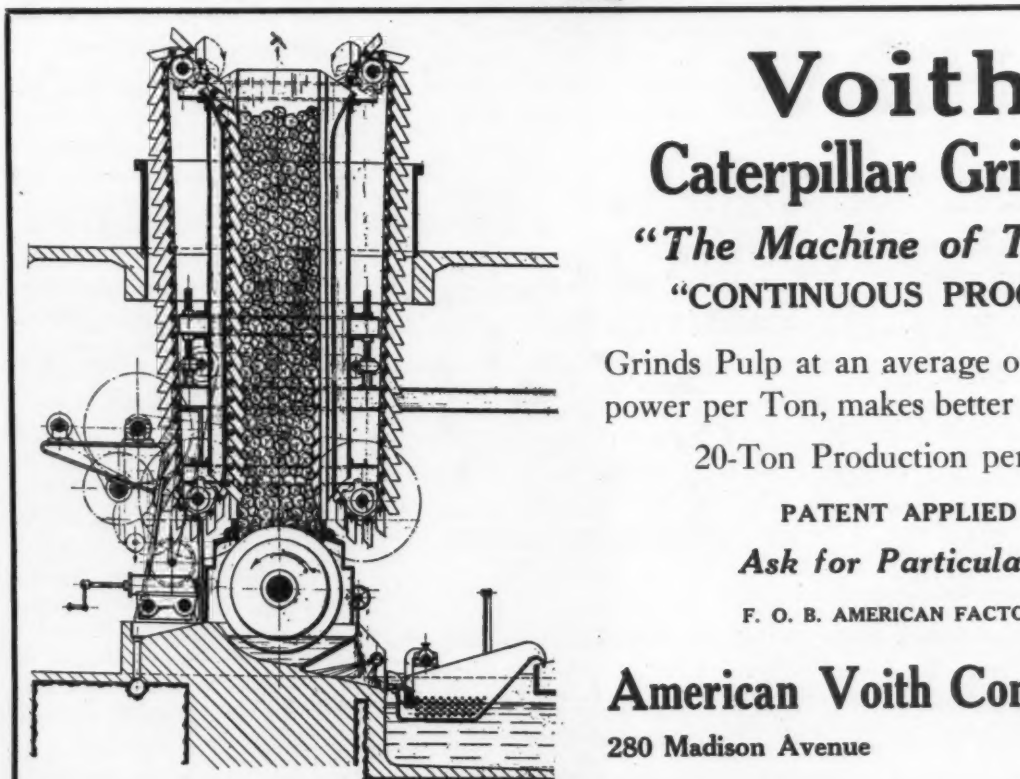
each drink a cup—each cup a sale for you and at lowest cost of any cup on the market.

At such prices SALES RESISTANCE IS NEGLIGIBLE and our direct advertising assistance in your city will get immediate results as it is now doing in many cities.

Burt's Paper Drinking Cups are made of fine white paper, without wax to make drinks taste, and are reinforced so holders are not necessary. They are kept under glass and cannot be wasted or soiled before use.

Cups retail at one fourth cent—dispensers at five dollars.

**F. N. Burt Company, Ltd.**
*Paper Cup Division*
**Buffalo, N. Y.**



# Voith
## Caterpillar Grinder
### *"The Machine of Today"*
### "CONTINUOUS PROCESS"

Grinds Pulp at an average of 45 Horsepower per Ton, makes better grade pulp.

20-Ton Production per unit

**PATENT APPLIED**

***Ask for Particulars.***

F. O. B. AMERICAN FACTORY

## American Voith Contact Co.

**280 Madison Avenue** **New York**

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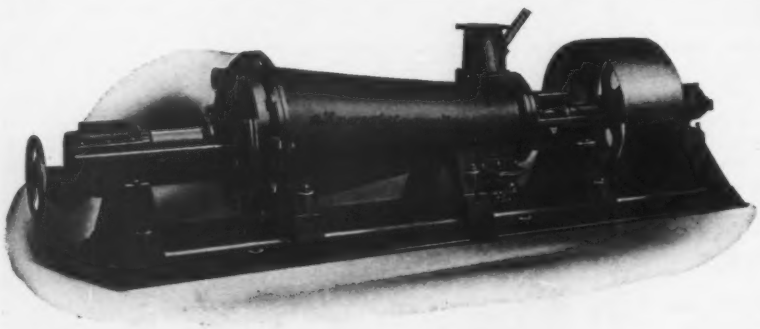

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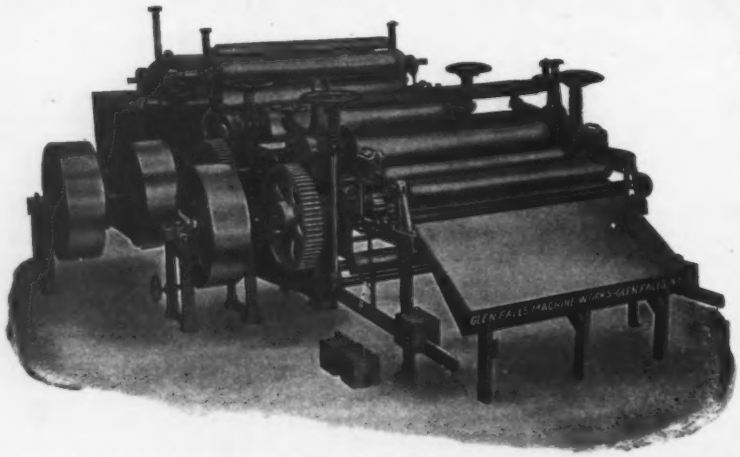


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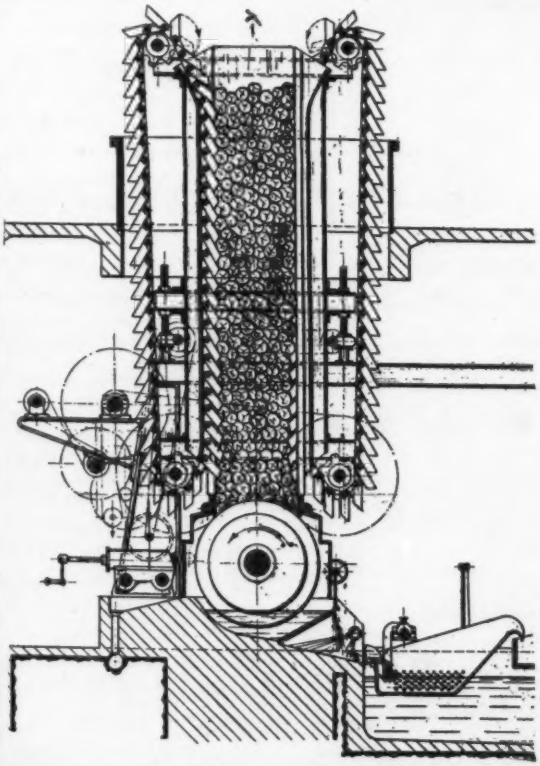

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**280 Madison Avenue** **New York**

XUM

# Imports and Exports of Paper and Paper Stock

## NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

## NEW YORK IMPORTS

WEEK ENDING DECEMBER 16, 1922

SUMMARY

News Print.....192 rolls
Printing Paper.....200 cs., 859 cs., 16 bls.
Surface Coated Paper.....17 cs.
Cigarette Paper.....49 cs.
Hangings.....60 bls., 9 cs.
Wall Paper.....22 bls.
Writing Paper.....29 cs.
Tissue Paper.....15 cs.
Filter Paper.....10 cs.
Drawing Paper.....11 cs.
Packing Paper.....80 bls.
Photo Paper.....17 cs.
Miscellaneous Paper..5,633 rolls, 389 cs., 920 bls.

CIGARETTE PAPER

De Manduit Paper Corp., Britannia, Marseilles, 29 cs.
Hard & Ritter, P. de Satrustegui, Barcelona, 20 cs.

PAPER HANGINGS

A. C. Dodman, Jr., Co., Celtic, Liverpool, 30 bls.
W. H. S. Lloyd & Co., Barbadian, London, 10 bls.
W. H. S. Lloyd & Co., by same, 2 cs.
W. H. S. Lloyd & Co., Mississippi, London, 7 cs.
W. H. S. Lloyd & Co., by same, 20 bls.

WALL PAPER

A. Murphy & Co., Majestic, Southampton, 4 bls.
A. Murphy & Co., Minnekahda, Hamburg, 1 bl.
A. C. Dodman, Jr., Co., Michigan, Antwerp, 17 bls.

WRITING PAPER

E. Dietzgen & Co., Britannia, Marseilles, 29 cs.

TISSUE PAPER

F. C. Strype, Celtic, Liverpool, 15 cs.

FILTER PAPER

H. Reeve Angel & Co., Barbadian, London, 6 cs.
H. Reeve Angel & Co., Mississippi, London, 4 cs.

DRAWING PAPER

H. Reeve Angel & Co., Mississippi, London, 3 cs.
H. Reeve Angel & Co., by same, 8 cs.

PACKING PAPER

M. O'Meara Co., Carlier, Antwerp, 80 bls.

PRINTING PAPER

B. F. Drakenfeld & Co., Celtic, Liverpool, 4 cs.
Chemical Nat'l Bank, Sinastra, Hamburg, 78 rolls.
Republic Bag & Paper Co., by same, 731 rolls.
Irving Nat'l Bank, Mt. Clay, Hamburg, 111 cs.
C. Steiner, Seydlitz, Bremen, 50 rolls.
Perkins, Goodwin & Co., Ryndam, Rotterdam, 16 bls.
H. Lips, Michigan, Antwerp, 85 cs.

NEWS PRINT

W. V. Bowater Sons, Mississippi, London, 192 rolls.

SURFACE COATED PAPER

P. Puttmann, Michigan, Antwerp, 17 cs.

PHOTO PAPER

Genaert Co. of America, Michigan, Antwerp, 17 cs.

PAPER

Republic Bag & Paper Co., Orbita, Hamburg, 1,377 rolls.
Irving Nat'l Bank, by same, 165 rolls.
Chemical Nat'l Bank, by same, 182 rolls.
Ladenburg, Thalman & Co., by same, 346 bls.
Ladenburg, Thalman & Co., Gaasterdyk, Rotterdam, 24 cs.
Parsons & Whittemore, Pres. Roosevelt, Bremen, 242 bls.
Parsons & Whittemore, by same, 2,308 rolls.
L. Schulman Co., by same, 462 rolls.
L. Schulman Co., by same, 148 bls.
H. Reeve Angel & Co., Inc., by same, 89 bls.
H. Reeve Angel & Co., by same, 89 bls.
Street & Smith Corp., by same, 412 rolls.
Hensel, Bruckman & Lorbacher, Mt. Clay, Hamburg, 3 cs.
Birn & Wachenheim, Seydlitz, Bremen, 100 bls.
E. Dietzgen & Co., Minnekahda, Hamburg, 70 cs.
Chemical Nat'l Bank, by same, 50 cs.
M. M. Cohen, by same, 184 bls.
Baxter Paper Co., by same, 22 bls.
T. Barrett & Son, by same, 135 bls.
T. Barrett & Son, by same, 64 rolls.

RAGS, BAGGING, ETC.

Albion Mills, Celtic, Liverpool, 59 bls. rags.
J. B. Mears & Co., Carmania, Liverpool, 160 bags hide cuttings.
J. M. Jaffe, Sinastra, Hamburg, 10 bls. rags.
E. J. Keller Co., Inc., by same, 277 bls linen threads.
E. J. Keller Co., Inc., by same, 106 bls bagging.
Salomon Bros. & Co., by same, 409 bls. rags.
M. O'Meara Co., by same, 113 bls rags.
Irving Nat'l Bank, by same, 89 bls. new cuttings.
Equitable Trust Co., by same, 94 bls new cuttings.
American Exchange Nat'l Bank, by same, 406 bls. rags.
Lenin & Rosenberg, Pres. Polk, London, 130 bls. rags.
Albion Mills, by same, 22 bls. rags.
Equitable Trust Co., Lepanto, New castle, 75 bls. waste paper.
E. J. Keller Co., Inc., Carlier, Antwerp, 186 bls. flax waste.
Wilkinson, Bros. & Co., Inc., by same, 77 bls. rags.
W. Hughes & Co., Inc., Gaasterdyk, Rotterdam, 116 bls. cotton waste.
W. Hughes & Co., Inc., by same, 207 bls. rags.
Katzenstein & Keene, Inc., by same, 240 bls rags.
Katzenstein & Keene, Inc., by same, 150 bls. bagging.
Katzenstein & Keene, Inc., by same, 42 bls. new cuttings.
State Bank, by same, 26 bls. new cuttings.
E. J. Keller Co., Inc., by same, 140 bls. paper stock.
Waste Material Trading Corp., by same, 208 bls. bagging.
S. Silberman, by same, 329 bls. paper stock.
Salomon Bros., & Co., Surnga, Kohe, 94 bls. cotton waste.
A. W. Fenton, Inc., by same, 25 bls. cotton waste.
American Wood Pulp Corp., by same, 180 bls. cotton waste.
Atlas Waste Mfg. Co., by same, 13 bls. cotton waste.
O'Neill Bros., Inc., by same, 50 bls. cotton waste.
Equitable Trust Co., Hambleton Range, Leith, 81 bls. waste paper.
Irving Nat'l Bank., by same, 98 bls. waste paper.
Salomon Bros. & Co., Columbia, Glasgow, 30 bls. rags.
Katzenstein & Keene, Inc., Paris, Havre, 57 bls. rags.
Katzenstein & Keene, Inc., Sonora, Havre, 54 bls. rags.
Katzenstein & Keene, Inc., Vincent, Havre, 412 bls. bagging.
Katzenstein & Keene, Inc., Breiz Izel, Havre, 100 bls. bagging.
Katzenstein & Keene, Inc., Janus, Marseilles, 268 bls. rags.
E. J. Keller Co., Inc., by same, 193 bls. rags.
American Wood Pulp Corp., by same, 723 bls. rags.
Albion Mills, Barbadian, London, 14 bls. rags.
M. O'Meara Co., Ryndam, Rotterdam, 159 bls. picker waste.
W. Hughes & Co., Inc., by same, 251 bls. cotton waste.
Ladenburg, Thalman & Co., Ryndam, Rotterdam, 480 bls. paper stock.
Royal Waste Mfg. Co., by same, 29 bls. cotton waste.
Albion Mills, Antonia, Liverpool, 28 bls. rags.
Salomon Bros. & Co., Michigan, Antwerp, 165 bls. flax waste.
Salomon Bros. & Co., Nebraskan, Kohe, 100 bls. thread waste.
American Wood Pulp Corp., Crissfield, Antwerp, 593 bls. rags.
E. Butterworth & Co., Inc., by same, 91 bls. bagging.
Salomon Bros. & Co., by same, 47 bls. rags.
S. Silberman, by same, 236 bls. rags.
P. Berlowitz, by same, 47 bls. rags.
E. J. Keller Co., Inc., by same, 138 bls. baggings.
E. J. Keller Co., Inc., by same, 8 bls. flax waste.
Brown Bros. & Co., by same, 69 bls. rags.
R. F. Downing & Co., by same, 81 bls. bagging.

OLD ROPE

E. J. Keller Co., Inc., Hambleton Range, Leith, 87 coils.
Wilkinson Bros. & Co., Inc., by same, 90 coils.
Wilkinson Bros. & Co., Inc., Carlier, Antwerp, 162 coils.
Katzenstein & Keene, Inc., Columbia, Glasgow, 62 coils.
M. Walfer & Co., Toloa, Havana, 7 coils.
Brown Bros., & Co., Lepanto, Newcastle, 107 coils.
Brown Bros., & Co., Gaasterdyk, Rotterdam, 84 coils.
Equitable Trust Co., by same, 119 coils.
Chemical Nat'l Bank, Pittsburgh, Bremen, 79 coils.
Old Colony Trust Co., Janus, Genoa, 159 coils.
Brown Bros., & Co., Michigan, Antwerp 101 coils.
Brown Bros., & Co., Marengo, Hull, 40 coils.
Wilkinson Bros. & Co., Inc., by same, 180 coils.

CASEIN

T. M. Duche & Sons, Rio Grande, Buenos Aires, 1,084 bags.
Kalbfleisch Corp., W. World, Buenos Aires, 1,835 bags.
Atterbury Bros., Vanban, Buenos Aires, 600 bags.
A. Klipstein & Co., by same, 417 bags.

WOOD PULP

E. J. Keller Co., Inc., Eastside, Esnik, 1,000 bls.
Nat'l City Bank, Eastside, Sundsvall, 3,600 bls, 600 tons.
R. F. Hammond, by same, 4,200 bls, 700 tons.
Johanesson, Wales & Sparre, Inc., Eastside, Harnosand, 4,400 bls.
Johanesson, Wales & Sparre, Ins., Pallas, Skutskar, 2,625 bls, 532 tons.
Scandinavian-American Trading Co., by same, 2,125 bls, 277 tons.
A. J. Pagel Co., Inc., by same, 12,250 bls., 1,979 tons.
Pulkley, Dunton & Co., by same, 750 bls., 152 tons.
Bulkley, Dunton & Co., Seydlitz, Bremen, 3225 bls.
Bulkley, Dunton & Co., Pres. Roosevelt, Bremen, 1,000 bls., 205 tons.
R. F. Hammond, by same, 2,400 bls., 400 tons.
American Wood Pulp Corp., Mt. Clay, Hamburg, 775 bls., 156 tons.
Castle, Gottheil & Overton, Gaasterdyk, Rotterdam, 792 bls.
H. Hollesen, Orbita, Hamburg, 1,550 bls.

WOOD FLOUR

A. Kramer & Co., Orbita, Hamburg, 1,823 bags.
The Hansa Co., by same, 2,100 bags.

## BALTIMORE IMPORTS

WEEK ENDING DECEMBER 16, 1922

M. O'Meara Co., Michigan, Hamburg, 401 rolls news print.
H. Reeve Angel & Co., Inc., by same, 91 bls. print paper.
Gerhard & Hey, by same, 56 pgs. crepe paper.
Wood Pulp Trading Co., Ltd., Iddefjord, Kristiania, 5,000 bls. wood pulp.
M. Gottesman & Co., Inc., Leersum, Kallers, 1,270 bls. wool pulp.
H. Hollesen, Michigan, Hamburg, 800 bls. wood pulp.
R. F. Hammond, Trolleholm, Gothenburg, 1,000 bls., 200 tons wood pulp.
E. J. Keller Co., Inc., Tyne Marn, Kopellman, 7,803 bls. wood pulp.
E. J. Keller Co., Inc., Ala, Rotterdam, 743 bls. rags.
E. J. Keller Co., Inc., Breedyk, Rotterdam, 323 bls. rags.
Salomon Bros. & Co., Sinastra, Hamburg, 381 bls. rags.
Castle, Gottheil & Ocerton, Michigan, Hamburg, 200 bls. rags.
S. Birkenstein Son, by same, 385 bls. rags.
The Congoleum Co., Michigan, Antwerp, 457 bls. rags.
Old Colony Trust Co., by same, 78 coils old rope.

## BOSTON IMPORTS

WEEK ENDING DECEMBER 16, 1922

Johanesson, Wales & Sparre, Inc., Eastside, Harnosand, 66,000 bls. wood plup.
R. F. Hammond, Naruega, Christiania, 250 bls., 50 tons wood pulp.
R. F. Hammond, Hellenic, Gothenburg, 500 bls., 100 tons wood pulp.
M. Gottesman & Co., Inc., Dallas, Sundsvall, 1,250 bls. wood pulp.
M. Gottesman & Co., Inc., Naruega, Christiania, 3,250 bls. wood pulp.
Salomon Bros. & Co., West Kebar, Hamburg, 46 bls. rags.
Salomon Bros., & Co., Gattymore, Glasgow, 157 bls. flax waste.
T. M. Duche & Sons, Rio Grande, Buenos Aires, 417 bags casein.
J. A. & W. Bird & Sons, Eastern Sea, Melbourne, 1,000 bags casein.

(*Continued on page* 68)

DAYTON OFFICE

N. Y. Office
280 Broadway

Chicago Office
Otis Bldg.

Howard Bond

HOWARD BOND

Howard Ledger

"The Paper of Many Uses"

*Manufactured by*

THE HOWARD PAPER COMPANY

MILLS
Urbana, Ohio

West Virginia Pulp and Paper Company

*Manufacturers of*

Supercalendered and Machine

Finished Book and Lithographic Papers

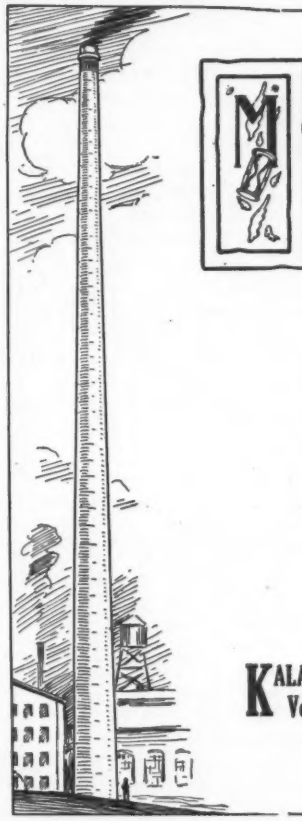
Offset, Envelope and Music Paper, High Grade Coated Book and Label Papers

*also*

Bleached Spruce Sulphite and Soda Pulp

200 Fifth Avenue
New York

732 Sherman Street
Chicago



MAJESTIC, steel-ribbed, rock rooted, the 285 ft. K. V. P. smoke stack symbolizes the superior product of the big plant over which it presides.

If you are not acquainted with this organization whose two-fold ideal is "To excel in Paper product and just be good folks to do business with," the latch string is out. Come in!

KALAMAZOO Vegetable Parchment Co.

KALAMAZOO
MICHIGAN

GREASEPROOF PARCHMENT PAPERS

OF STANDARD QUALITY

Purity — Quality Plus

Ashmere — Equally Fine

Berkshire — Stands the Test

OUR PAPERS ARE EXCELLENT FOR MEAT MARKETS, GROCERS AND GENERAL PACKING HOUSE REQUIREMENTS

Mountain Mill Paper Co.

(Write for Samples and Quotations)
MILLS AND GENERAL OFFICES
125 Forest Street, Lee, Mass.

XUM

# New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
TUESDAY, DECEMBER 19, 1922.

The tone which prevailed throughout the past week in New York's paper and pulp markets was, for the most part, a quiet one. No alarm was expressed over the softening price tendency as the general easiness was almost wholly attributable to the inventory and repair season and the usual relaxation which precedes the Christmas holidays.

A slight improvement in demand was evidenced in book paper circles during the past week, but this was traced to the unusually heavy holiday demand and numerous fill-in orders to tide dealers over. News print continued very active, strengthening even over the preceding week, and mills were crowded to capacity. Chemical pulps continued to ease off in tone although no further price drops were recorded. Ground wood has held in an exceptionally firm position and the water scarcity in grinding regions has given this market a bullish aspect despite the time of year and general disinclination on the part of mills to stock up before January.

News print producers are now beginning to look back with justifiable pride upon their record-breaking production during the current year and, in view of the fact that the majority of them are covered on contract for at least the first quarter of 1923, they are looking to the new year for an unprecedented volume of business. Fundamental conditions have never been brighter in this field and as compared with December, 1922, the news print industry is confronted with infinitely greater possibilities in the year to come.

The book paper market retaliated last week for the easing up which had characterized it in the few weeks preceding by consummating a goodly volume of spot business. This would indicate that fundamental conditions in this market are sound and that the depression which is making itself felt in various channels of the paper trade is wholly a seasonal one. The demand for book paper for export continued to be very light.

Retail trade in fine papers of all grades has been very lively throughout the pre-holiday period, and this has been reflected in the diminishing stocks of jobbers and subsequent fill-in orders to mills. Fine paper dealers have been reluctant to stock up to any great extent until Christmas inventories could have been taken, but it is believed that by January 15 the normal flow of business will have been resumed and under more auspicious conditions than have prevailed in many months.

Tissues have strengthened their position slightly although the current demand is of a hand-to-mouth character. Mills are finding less difficulties in production and transportation that have existed in the past two months and it is believed that with the resumption of a healthy demand from the consuming trade business will flourish. Cars are now available in greater quantities, both for shipment of raw materials and the finished product, and when grinding conditions are again normal in regions producing mechanical pulp, two of the greatest obstacles to progress in this market will have been removed.

While kraft imports show no great decrease in volume, the bulk of these are being applied to contracts. Domestic production has lightened somewhat in anticipation of inventory period and demand has sagged to a certain extent. However, up to December 1 the wrapping paper market was in an exceptionally firm position, with consumption running at a lively clip and domestic mills operating close to capacity to cover the demand. This condition, it is generally believed, will return when the buying for the new year sets in.

As evidence of the fact that the depression in the board market, which was noted week before last as a result of cancellations following a dropping off in chemical pulp prices, was an artificial one, considerable activity was reported in last week's trade and prices exhibited a steadying tendency. It is not believed that any further drops will take place before the post-holiday buying period arrives, at which time the board market as well as the chemical pulp market should revive their former strength.

### Mechanical Pulp

Consumption of ground wood has continued to hold prices in this market very firm, and low water conditions in grinding regions has been accountable for a steady stiffening in the tone of the market as well as in quoted prices. Prime spruce ground wood for immediate shipment has been quoted at prices ranging upwards of $44 per ton, although a range of $40 to $44 would include the bulk of transactions. The news print industry has been draining the available supplies of this commodity as fast as it has been produced, leaving a very limited supply of mechanical pulp on the domestic market. Owing to the fact no immediate relief in grinding conditions is in sight and the lack of evidence of a cessation in demand, prices in this market are not expected to weaken over the holidays.

### Chemical Pulp

No further price drops have been reported during the last week's transactions in the chemical pulp market over those of the week before, and importers have enjoyed a fair volume of scattered business from needy consumers. From all appearances the effort to force sales despite the season of the year has been abandoned and if this is the case it is believed that no further declines in pulp values will be recorded during the inventory period. The undertone of the market is still shaky, but the outlook is much brighter than it was a week ago when many grades of the imported fiber suffered sharp price declines and this was accompanied by cancellations further along the line.

### Old Rope and Bagging

Domestic grades of old rope have been moving to consumers with fair regularity and in satisfactory volume although stimulus is lacking in demand. Prices continue steady on domestic offerings, while imports have fallen off perceptibly.

A scanty demand continues to hold the tone of the bagging market below normal and although no actual price drops have occurred during the last two weeks, transactions have not been on a large enough scale to make this a promising indication. No. 1 scrap bagging has continued to move to tissue manufacturers in light amounts, while roofing bagging has remained in its rut of the past two months. A general revival of activity is looked forward to by both old rope and bagging dealers with the coming of the new year.

### Waste Paper

The chief feature of the waste paper market of the past week was the advance in price of folded news. This renaissance in the lower grades coming at a season when buying is usually very lax would indicate that the slump in the waste paper market is over and that a period of brisk activity may be expected when the buying for the new year once begins. Other grades have maintained a fairly firm position and as yet no price lowerings have been reported. Shavings are still easy, as are other listings of high quality, but the downward trend of prices appears to have halted definitely.

### Rags

A fair demand is keeping the domestic rag market in the running, but that of roofing felt manufacturers is slightly better than the call from the paper manufacturing trade. White rags are quite firm, although the bulk of business is centered about the completion of old contracts. Blues have been less active, while specialty grades have had considerable turnover in recent weeks. Rag importations are still an insignificant factor in the market owing to the slack consuming demand. Better times are in sight, in the estimation of dealers, after January 1.

### Twine

The twine market in and around New York is now contending with the general seasonal inertia as well as the lassitude from which it has suffered as a result of light demand.

XUM

# Market Quotations

## Paper Company Securities

New York Stock Exchange closing quotations December 19, 1922:

| | BID | ASKED |
|---|---|---|
| American Writing Paper Company, pref. | 28 | 29 |
| International Paper Company, com. | 51½ | 52 |
| International Paper Company, pref., stamped | 72 | 75 |
| Union Bag & Paper Corporation | 65 | 68 |

## Paper

F. o. b. Mill.

| | | | |
|---|---|---|---|
| Ledgers | 11.00 | @ | 38.00 |
| Bonds | 9.00 | @ | 55.00 |
| **Writings—** | | | |
| Extra Superfine | 16.00 | @ | 35.00 |
| Superfine | 14.00 | @ | 30.00 |
| Tub Sized | 10.00 | @ | 15.00 |
| Engine Sized | 8.50 | @ | 11.00 |
| **News—f. o. b. Mill—** | | | |
| Rolls, contract | 3.85 | @ | 4.00 |
| Rolls, transit | 4.00 | @ | — |
| Sheets | 4.00 | @ | — |
| Side Runs | 3.25 | @ | 3.50 |
| **Book, Cased—f. o. b. Mill** | | | |
| S. & S. C. | 7.50 | @ | 12.00 |
| M. F. | 7.00 | @ | 10.00 |
| Coated and Enamel | 9.00 | @ | 14.00 |
| Lithograph | 9.00 | @ | 14.00 |
| **Tissues—f. o. b. Mill** | | | |
| White, No. 1 | .95 | @ | 1.10 |
| Colored | 1.25 | @ | 2.50 |
| Anti-Tarnish | 1.75 | @ | 2.25 |
| Silver Tissue | — | @ | — |
| Manila | .90 | @ | 1.00 |
| **Kraft—f. o. b. Mill—** | | | |
| No. 1 Domestic | 7.00 | @ | 7.50 |
| No. 2 Domestic | 6.50 | @ | 6.75 |
| Imported | 6.50 | @ | 7.00 |
| Screenings | 3.15 | @ | 3.40 |
| **Manila—** | | | |
| No. 1 Jute | 8.50 | @ | 9.00 |
| No. 2 Jute | 7.75 | @ | 8.50 |
| No. 1 Wood | 4.50 | @ | 5.50 |
| No. 2 Wood | 4.00 | @ | 4.50 |
| Butchers | 4.25 | @ | 4.75 |
| **Fiber Papers—** | | | |
| No. 1 Fiber | 6.00 | @ | 6.25 |
| No. 2 Fiber | 5.25 | @ | 5.50 |
| Common Bogus | 3.50 | @ | — |
| Card Middies | 4.00 | @ | 5.00 |
| **Boards—per ton—** | | | |
| News | 60.00 | @ | 65.00 |
| Straw | — | @ | — |
| Chip | 35.00 | @ | 60.00 |
| Binders' Board | 75.00 | @ | 85.00 |
| Sgl. Mla. Lt.Chip | 65.00 | @ | 70.00 |
| Wood Pulp | — | @ | — |
| Container | — | @ | — |
| **Wax Paper—** | | | |
| Self Sealing White 28 and 30 lb. basis | 11.00 | @ | 12.00 |
| Waxed Tissue | 1.60 | @ | 1.80 |
| **Glassine—** | | | |
| Bleached, basis 25 lbs. | 15.00 nominal | | |
| Bleached, basis 20 lbs. | 13.00 nominal | | |
| **Papermakers' Felts, per ton—** | | | |
| Dry | 75.00 | @ | 85.00 |
| Saturated | 65.00 | @ | 75.00 |
| **Sheathing Paper, per ton—** | | | |
| Rosin Sized (red and gray, 30 lbs. per 500 sq. ft.) | 55.00 | @ | 65.00 |

## Mechanical Pulp

(Ex-Dock)

| | | | |
|---|---|---|---|
| No. 1 Imported | 40.00 | @ | 45.00 |
| No. 1 Domestic | 40.00 | @ | 44.00 |
| For immediate shipment | 45.00 | @ | — |

## Chemical Pulp

(Ex-Dock, Atlantic Ports.)

| | | | |
|---|---|---|---|
| **Sulphite (Imported)—** | | | |
| Bleached | 4.25 | @ | 4.75 |
| Easy Bleaching | 3.00 | @ | 3.25 |
| No. 1 strong unbleached | 2.80 | @ | 3.00 |
| No. 2 Strong unbleached | 2.65 | @ | 3.00 |
| No. 1 Kraft | 2.75 | @ | 2.85 |
| **Sulphate—** | | | |
| Bleached | 4.00 | @ | 4.25 |
| (F. o. b. Pulp Mill.) | | | |
| **Sulphite (Domestic)—** | | | |
| Bleached | 4.50 | @ | 5.00 |
| Strong unbl'chd. | 2.90 | @ | 3.20 |
| Easy Bleaching Sulphite | 3.00 | @ | 3.25 |
| News Sulphite | 2.75 | @ | 3.00 |
| Mitscherlich | 2.85 | @ | 3.15 |
| Kraft (Domestic) | 2.85 | @ | 3.10 |
| Soda Bleached | 4.25 | @ | 4.50 |

## Domestic Rags

New Prices to Mill, f. o. b. N. Y.

| | | | |
|---|---|---|---|
| **Shirt Cuttings—** | | | |
| New White, No. 1 | 11.50 | @ | 12.00 |
| New White, No. 2 | 6.50 | @ | 7.00 |
| Silesias, No. 1 | 7.50 | @ | 8.00 |
| New Unbleached | 9.00 | @ | 9.50 |
| Washables | 4.50 | @ | 5.00 |
| Fancy | 6.25 | @ | 6.75 |
| **Cotton—according to Grades—** | | | |
| Blue Overall | 5.50 | @ | 6.00 |
| New Blue | 4.75 | @ | 5.00 |
| New Black Soft | 5.50 | @ | 6.00 |
| New Light Seconds | 2.75 | @ | 3.00 |
| O. D. Khaki Cuttings | 4.00 | @ | 4.50 |
| Men's Corduroy | 3.00 | @ | 3.25 |
| New Canvas | 7.00 | @ | 7.25 |
| New Black Mixed | 2.50 | @ | 2.75 |
| Old White, No. 1—Repacked | 6.50 | @ | 6.75 |
| Old White, No. 1—Miscellaneous | 5.50 | @ | 5.75 |
| White, No. 2—Repacked | 3.25 | @ | 3.50 |
| White, No. 2—Miscellaneous | 5.50 | @ | 5.75 |
| St. Soiled White | 1.75 | @ | 1.85 |
| **Thirds and Blues—** | | | |
| Repacked | 1.90 | @ | 2.10 |
| Miscellaneous | 1.50 | @ | 1.60 |
| Black stockings | 2.90 | @ | 3.25 |
| **Roofing Rags—** | | | |
| Cloth Strippings | 1.10 | @ | 1.20 |
| No. 1 | 1.10 | @ | 1.20 |
| No. 2 | 1.00 | @ | 1.10 |
| No. 3 | .80 | @ | .90 |
| No. 4 | .80 | @ | .90 |
| No. 5A | 1.00 | @ | 1.10 |

## Foreign Rags

| | | | |
|---|---|---|---|
| New Light Silesias | 6.00 | nominal | |
| Light Flannelettes | 6.75 | nominal | |
| Unbl'chd Cottons | 7.50 | nominal | |
| New White Cuttings | 9.50 | nominal | |
| New Light Oxfords | 6.00 | nominal | |
| New Light Prints | 4.50 | nominal | |
| New Mixed Cuttings | 2.00 | @ | 2.50 |
| New Dark Cuttings | 1.90 | @ | 2.10 |
| No. 1 White Linens | 9.00 | @ | 11.00 |
| No. 2 White Linens | 6.50 | nominal | |
| No. 3 White Linens | 5.00 | nominal | |
| No. 4 White Linens | 3.50 | nominal | |
| Old Extra Light Prints | 2.00 | nominal | |
| Ord. Light Prints | 1.75 | nominal | |
| Med. Light Prints | 1.50 | nominal | |
| Dutch Blue Cottons | 1.85 | nominal | |
| German Blue Cottons | 1.60 | @ | 1.70 |
| Ger. Blue Linens | 3.50 | nominal | |
| Checks and Blues | 1.50 | nominal | |
| Dark Cottons | 1.30 | @ | 1.35 |
| Shoppery | 1.00 | @ | 1.05 |
| French Blues | 1.75 | @ | 2.00 |

## Bagging

Prices to Mill f. o. b. N. Y.

| | | | |
|---|---|---|---|
| **Gunny No. 1—** | | | |
| Foreign | 1.00 | @ | 1.10 |
| Domestic | 1.00 | @ | 1.10 |
| Wool, Tares, light | 1.45 | @ | 1.55 |
| Wool, Tares, heavy | 1.40 | @ | 1.50 |
| Bright Bagging | 1.05 | @ | 1.20 |
| No. 1 Scrap | 1.05 | @ | 1.20 |
| Sound Bagging | .85 | @ | .95 |
| **Manila Rope—** | | | |
| Foreign | 5.75 | @ | 6.00 |
| Domestic | 6.00 | @ | 6.25 |
| New Bu. Cut | 2.25 | @ | 2.45 |
| **Hessian Jute Threads—** | | | |
| Foreign | 2.25 | @ | 2.50 |
| Domestic | 2.20 | @ | 2.40 |
| Mixed Strings | .90 | @ | 1.00 |

## Twines

| | | | |
|---|---|---|---|
| **Cotton—(F. o. b. Mill)** | | | |
| No. 1 | .35 | @ | .37 |
| No. 2 | .31 | @ | .33 |
| No. 3 | .37 | @ | .39 |
| India, No. 6 basis—Light | .20 | @ | .21 |
| Dark | .19 | @ | .20 |
| B. C., 18 Basis | .41 | @ | .42 |
| A. B. Italian, 18 Basis | .51 | @ | .61 |
| **Finished Jute—** | | | |
| Dark, 18 basis | .29 | @ | .30 |
| Light, 18 basis | .26 | @ | .27 |
| **Jute Wrapping, 3-6 Ply—** | | | |
| No. 1 | .23 | @ | .24 |
| No. 2 | .21 | @ | .22 |
| **Tube Rope—** | | | |
| 4-ply and larger | .15 | @ | .17 |
| **Fine Tube Yarn—** | | | |
| 5-ply and larger | .19 | @ | .21 |
| 4-ply | .20 | @ | .22 |
| 3-ply | .20 | @ | .22 |
| **Unfinished India—** | | | |
| Basis | .16 | @ | .17 |
| **Paper Makers Twine** | | | |
| Balls | .13 | @ | .15 |
| Box Twine, 2-3 ply | .18 | @ | .19 |
| Jute Rope | .17 | @ | .20 |
| Amer. Hemp, 6 | .33 | @ | .35 |
| **Sisal Hay Rope—** | | | |
| No. 1 Basis | .15 | @ | .17 |
| No. 2 Basis | .13 | @ | .15 |
| **Sisal Lath Yarn—** | | | |
| No. 1 | .14 | @ | .15 |
| No. 2 | .11 | @ | .13 |
| Manila Rope | .18 | @ | .19 |

## Old Waste Papers

(F. o. b. New York)

| | | | |
|---|---|---|---|
| **Shavings—** | | | |
| Hard, White, No. 1 | 4.20 | @ | 4.40 |
| Hard, White, No. 2 | 3.75 | @ | 4.15 |
| Soft, White, No. 1 | 3.75 | @ | 3.90 |
| **Flat Stock—** | | | |
| Stitchless | 2.65 | @ | 2.70 |
| Over Issue Mag. | 2.75 | @ | 2.75 |
| Solid Flat Book | 2.45 | @ | 2.50 |
| Crumpled No. 1 | 2.10 | @ | 2.15 |
| Solid Book Ledger | 3.00 | @ | 3.25 |
| Ledger Stock | 2.70 | @ | 2.80 |
| New B. B. Chips | 1.00 | @ | 1.10 |
| **Manilas—** | | | |
| New Env. Cut | 2.50 | @ | 2.60 |
| New Cut No. 1 | 2.00 | @ | 2.10 |
| Extra No. 1 Old | 1.80 | @ | 1.90 |
| Print | 1.55 | @ | 1.65 |
| Container Board | 1.25 | @ | 1.35 |
| Bogus Wrapper | 1.10 | @ | 1.20 |
| **Old Krafts, machine compressed Bales** | 2.15 | @ | 2.25 |
| **News—** | | | |
| No. 1 White News | 2.00 | @ | 2.15 |
| Strictly Overissue | 1.20 | @ | 1.35 |
| Strictly Folded | 1.15 | @ | 1.30 |
| No. 1 Mixed Paper | .75 | @ | .90 |
| Common Paper | .60 | @ | .70 |

# CHICAGO

[FROM OUR REGULAR CORRESPONDENT]

## Paper

F. o. b. Mill

| | | | |
|---|---|---|---|
| All Rag Bond | 35 | @ | 40 |
| No. 1 Rag Bond | 30 | @ | 35 |
| No. 2 Rag Bond | 18 | @ | 25 |
| Water Marked Sulphite | 10 | @ | 14 |
| Sulphite Bond | 9½ | @ | 12 |
| Sulphite Ledger | 12 | @ | 14 |
| Superfine Writing | 18 | @ | 24 |
| No. 1 Fine Writing | 14 | @ | 22 |
| No. 2 Fine Writing | 12 | @ | 20 |
| No. 3 Fine Writing | 9 | @ | 12 |
| No. 1 M. F. Book | 6½ | @ | 7 |
| No. 1 S. & S. C. Book | 7 | @ | 7½ |
| Cooated Book | 8¾ | @ | 9 |
| Coated Label | 8½ | @ | 8¾ |
| News—Rolls mill | 4 | @ | 4½ |
| News—Sheets, mill | 4¼ | @ | 4¾ |
| No. 1 Manila | 4¾ | @ | 6 |
| No. 1 Fiber | 5¾ | @ | 5¾ |
| No. 2 Manila | 4½ | @ | 5 |
| Butchers' Manila | 4 | @ | 4½ |
| No. 1 Kraft | 7 | @ | 7½ |
| No. 2 Kraft | 6½ | @ | 7 |
| Wood Tag Boards | 4½ | @ | 5 |
| Screenings | 3 | @ | 4 |
| Boards, per ton—Plain Chip, Solid News, Manila Lined Chip, Container Line—85 Test, 100 Test | All quotations withdrawn | | |

## Old Papers

| | | | |
|---|---|---|---|
| **Shavings—** | | | |
| No. 1 Hard White | 4.00 | @ | 4.25 |
| No. 1 Soft Shav. | 3.60 | @ | 3.70 |
| No. 1 Mixed | 1.25 | @ | 1.50 |
| No. 2 Mixed | 1.25 | @ | 1.50 |
| White Envel. Cuttings | 4.00 | @ | 4.25 |
| Ledgers and Writtings | 2.75 | @ | 3.00 |
| Solid Books | 2.50 | @ | 2.55 |
| No. 1 Books, light | 2.35 | @ | — |
| Blanks | 2.00 | @ | 2.25 |
| Ex. No. 1 Manila | 2.25 | @ | — |
| Manila Envelope Cuttings | 2.40 | @ | 2.60 |
| No. 1 Manilas | 1.50 | @ | 1.60 |
| Folders News (overiss.ue) | 1.20 | @ | 1.25 |
| Old Newspaper | 1.25 | @ | 1.35 |
| Mixed Papers | 1.05 | @ | 1.15 |
| Straw Clippings | 1.05 | @ | 1.15 |
| Binders Clippings | 1.05 | @ | 1.15 |
| Kraft | 2.15 | @ | 2.25 |
| New Kraft Cuts | 2.50 | @ | — |
| **Roofing Stock, f. o. b. Chicago, Net Cash—** | | | |
| No. 1 | 32.00 | @ | — |
| No. 2 | 30.00 | @ | — |
| No. 3 | 28.00 | @ | — |
| No. 4 | 28.00 | @ | — |

# PHILADELPHIA

[FROM OUR REGULAR CORRESPONDENT]

## Paper

| | | | |
|---|---|---|---|
| Bonds | .10 | @ | .60 |
| Ledgers | .15 | @ | .40 |
| **Writings—** | | | |
| Superfine | .15 | @ | .20 |
| Extra fine | .12 | @ | .22 |
| Fine | .20 | @ | .30 |
| Fine, No. 2 | .20 | @ | .25 |
| Fine, No. 3 | .15 | @ | .20 |
| Book, M. F. | .06 | @ | .11 |
| Book, S. S. & C. | .08 | @ | .15 |
| Book, Coated | .08 | @ | .15 |
| Coated Lithograph | .10 | @ | .15 |
| Label | .08 | @ | .15 |
| News | .05 | @ | .07 |
| No. 1 Jute Manila | .12 | @ | .13 |
| Manila Sul., No. 1 | .08 | @ | .10 |
| Manila No. 2 | .07½ | @ | .08 |
| No. 2 Kraft | — | @ | .10 |
| No. 1 Kraft | — | @ | .11 |
| Common Bogus | .02½ | @ | .03 |
| Straw Board | 67.50 | @ | 70.00 |
| News Board | 58.00 | @ | |
| Chip Board | 58.00 | @ | |
| Wood Pulp Board (Carload Lots) | 1.20 | @ | 1.25 |
| **Binder Boards—** | | | |
| Per ton | 80.00 | @ | |
| Carload lots | 80.00 | @ | |
| **Tarred Felts—** | | | |
| Regular | 48.00 | @ | 50.00 |
| Slaters | 54.00 | @ | 56.00 |
| Best Tarred, 1-ply (per roll) | 1.35 | @ | 1.50 |
| Best Tarred, 2-ply (per roll) | 1.00 | @ | 1.15 |
| Best Tarred, 3-ply | 1.50 | @ | 1.65 |

## Bagging

F. o. b. Phila.

| | | | |
|---|---|---|---|
| **Gunny No. 1—** | | | |
| Foreign | 1.10 | @ | |
| Domestic | 1.10 | @ | |
| Manila Rope | 5.25 | @ | 5.75 |
| Sisal Rope | .75 | @ | .80 |
| Mixed Rope | .75 | @ | .80 |
| Scrap Burlaps | 1.00 | @ | 1.25 |
| Wool Tares, heavy | 2.50 | @ | 2.75 |
| Mixed Strings | .75 | @ | .80 |
| No. 1, New Lt. Burlap | 1.75 | @ | 2.00 |
| New Burlap Cuttings | 1.75 | @ | 2.10 |

## Old Papers

F. o. b. Phila.

| | | | |
|---|---|---|---|
| **Shavings—** | | | |
| No. 1, Hard White | 4.00 | @ | 4.25 |
| No. 2, Hard White | 3.50 | @ | 3.75 |
| No. 1 Soft White | 3.60 | @ | 3.75 |
| No. 2 Soft White | 2.00 | @ | 2.25 |
| No. 1 Mixed | 1.50 | @ | 1.75 |
| No. 2 Mixed | 1.00 | @ | 1.25 |

(Continued on page 70)

# Imports and Exports of Paper and Paper Stock

(*Continued from page 64*)

## CHARLESTON IMPORTS

WEEK ENDING DECEMBER 16, 1922

Castle, Gottheil & Overton, Fluor Spar, Rotterdam, 239 bls. rags.
Katzenstein & Keene, Inc., Tulsa, Glasgow, 139 bls. bagging.

## PHILADELPHIA IMPORTS

WEEK ENDING DECEMBER 16, 1922

Castle, Gottheil & Overton, Sonora, Bordeaux, 76 bales rags.
Castle, Gottheil & Overton, Elmsport, Rotterdam, 906 bales rags.
Castle, Gottheil & Overton, Ville d'Djiboute, Marseilles, 281 bales rags.
Castle, Gottheil & Overton, Crissfield, Antwerp, 465 bales rags.
Corn Exchange Bank, by same, 104 bales rags.
Corn Exchange Bank, by same, 94 bales bagging.
E. J. Keller Co., Inc., by same, 401 bales rags.
E. J. Keller Co., Inc., by same, 101 bales cotton waste.
E. J. Keller Co., Inc., Breedijk, Rotterdam, 309 bales rags.
Katzenstein & Keene, Inc., Sonora, Havre, 119 bales rags.
Katzenstein & Keene, Inc., Galtimore, Glasgow, 53 bales rags.
Katzenstein & Keene, Inc., Stockholm, Stockholm, 34 bales new cuttings.
Katzenstein & Keene, Inc., Springfield, Glasgow, 80 bales rags.
Salomon Bros. & Co., Crissfield, Antwerp, 146 bales rags.
Salomon Bros. & Co., Breiz Izel, Harve, 113 bales rags.
D. M. Hicks, Inc., H. Range, Leith, 145 bales rags.
Old Colony Trust Co., by same, 115 coils old rope.

## NEW ORLEANS IMPORTS

WEEK ENDING DECEMBER 16, 1922

Castle, Gottheil & Overton, Kentucky, Rouen, 1,060 bales rags.
Castle, Gottheil & Overton, Andalusier, Antwerp, 658 bales rags.

## NORFOLK IMPORTS

WEEK ENDING DECEMBER 16, 1922

News Print Paper Corp., Michigan, Hamburg, 165 rolls news print.
Fernstrom Paper Co., Inc., by same, 385 rolls news print.
R. A. Cauthorne Paper Co., Inc., by same, 20 rolls paper.

# WORK OF PAPER DIVISION REVIEWED

WASHINGTON, D. C., December 20, 1922.—Dr. Julius Klein, chief of the Bureau of Foreign and Domestic Commerce in submitting his annual report this week to the Secretary of Commerce has the following to say about the work of the Paper Division of the bureau of which John Matthews, Jr., is now chief. Dr. Klein says:

The paper division was one of the last of the commodity divisions to be established during this fiscal year, being organized in January, 1922, with Grosvenor M. Jones as chief. Its formation was largely the result of the desire of the many manufacturers represented by the American Paper and Pulp Association to have a commodity division in the bureau to cover the paper trade.

Late in May Mr. Jones left the division to organize the finance and investment division, and Constant Southworth acted as chief until the end of the fiscal year.

### Volume of Work Performed

The division has performed an almost steadily increasing volume of work. At the very start there was an unusual amount of correspondence, owing to the publicity attaching to the formation of the division. By the close of the fiscal year the correspondence handled by the division totaled 40 letters received and 53 sent out per week, aside from many circulars, reports, bulletins, etc., the preparation of which is steadily enlarging the volume of work performed by the division.

During June the total active personnel of the division consisted of two persons. It was therefore necessary to proceed somewhat more slowly than had been expected in the matter of several projects for allying the division more closely with the industry and for securing additional information on foreign markets for paper.

### Nature of Trade-Promotive Efforts

A working arrangement was established whereby problems in foreign trade presented by members of the paper industry to trade associations should be referred to this division for consideration and problems in domestic trade should be referred to the proper trade association for consideration. The division is also acting as a medium to encourage trade associations to furnish figures on production, shipments, etc., for publication in the department's Survey of Current Business. It has also secured the assistance of trade associations in the work of distributing effectively certain publications, confidential bulletins, trade notices, etc., of this bureau among members of the paper industry.

The division has not yet issued many publications on account of its limited personnel, but has maintained a section in Commerce Reports and has materially enlarged the distribution of that weekly magazine in the paper trade. Two confidential circulars and one Trade Information Bulletin have been issued and various items prepared for the trade press.

During June a proposed canvass of the paper industry to secure information regarding the experience and needs of paper manufacturers in the field of exporting was outlined by the division and presented to certain manufacturers and exporters for suggestions.

A general questionnaire on the markets for paper and paper products in all foreign countries was prepared. At the end of the fiscal year it was awaiting only further suggestions from the trade in order to be placed in final form for sending to consuls and bureau representatives in all parts of the world.

A large part of the division's time is consumed in replying to inquiries of all sorts relative to foreign trade and to the paper industry in foreign countries.

### Rubber Latex for Paper Industry

The division has rendered many miscellaneous services of value regarding foreign trade to paper manufacturers and exporters. As an instance of this sort, one may mention the negotiations of the division in the endeavor to procure 500 gallons of rubber latex (the milk of the rubber tree) from the East India plantations through the good offices of Commercial Attaché Walter S. Tower, at London, in order that the Bureau of Standards and various paper manufacturers may experiment with a newly invented process for the use of rubber latex in making paper. By cable communication with Mr. Tower the division made arrangements for the sending of this shipment, and by correspondence with the interested concerns in the United States it arranged to divide up the shipment according to the demands. Laboratory experiments already have established the fact that certain characteristics of paper are improved by the introduction of latex.

## To Build Big Dam in Lake St. John District

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., December 18, 1922.—No little interest was aroused in pulp and paper circles by the announcement just made by Hon. L. A. Taschereau, Prime Minister of the Province of Quebec, of another great dam in the pulpwood district. This dam is to be constructed at the Grand Discharge from Lake St. John, the headwaters of the Saguenay River. It will ultimately develop a million horsepower. An order in Council has been signed by the Lieutenant-Governor ratifying a contract between the Government and the Quebec Development Company, in which Sir William Price, of Quebec, and J. B. Duke, of New York, are interested.

XUM

# Felt Test—Lowest Cost per Ton

If you judge felt values, not by what you put into the equipment, but what you get out of it—then you will specify ORR 3 stripe Endless Felts for ORR felts will produce the lowest cost per ton. They "stand up" under severe usage. Orr durability is acknowledged everywhere. Their strength and long life are as dependable as their reliability and quality.

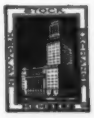
In the 32 grades of Felts and Jackets we can match your most exacting demands. Tell us the kind of paper you desire to make, and we will send you samples of felts that will economically serve you and help you to produce paper at lowest cost per ton.

**THE ORR FELT & BLANKET COMPANY, Piqua, Ohio**

# TAYLOR, BATES & CO.

*Members New York Stock Exchange*
*Members New York Cotton Exchange*

100 Broadway, New York
Tel. Rector 1140



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| BONDS<br>STOCKS<br>COTTON | Bought and Sold<br>on<br>Commission |

BRANCH OFFICE
41 EAST 42nd STREET
Tel. Murray Hill 5631

1864 1922

# "EXCELSIOR" FELTS

for every grade of

## PULP AND PAPER

We continue to maintain at the top the quality of Excelsior Felts, as we have done since we, as pioneers, made the first endless paper machine felts manufactured in America.

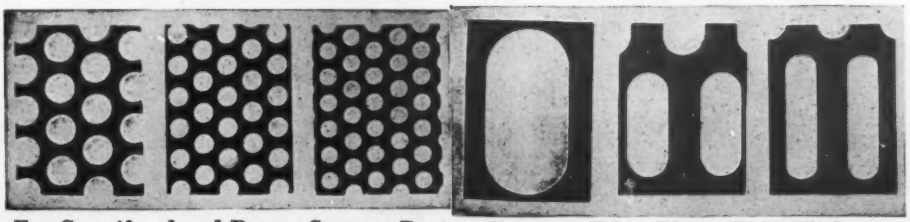
**Seamless felts for fast running.**
**Satin Style felts for finish.**
**Special felts to meet every condition.**
**Send us your felt problems.**

KNOX WOOLEN COMPANY
CAMDEN, MAINE

SOLD BY
**BULKLEY, DUNTON & COMPANY**
75-77 Duane St., N. Y., and direct

# PERFORATED METALS

*All sizes and shapes of Holes*



*All kinds and thicknesses of Metal*

For Centrifugal and Rotary Screens, Drainer Bottoms, Filter Plates, Pulp Washers, etc.

**The Harrington & King Perforating Company** 2

618 No. Union Ave., Chicago, Ill., U. S. A. New York Office, 114 Liberty St.


XUM

# Miscellaneous Markets

OFFICE OF THE PAPER TRADE JOURNAL,
TUESDAY, DECEMBER 19, 1922

BLEACHING POWDER.—Despite the efforts of producers to boost bleach prices above the 2.00 cent mark, close competition has served to stabilize values. The demand for bleaching powder holds firm and manufacturers of the chemical are devoting more attention to the filling of next year's contracts than to the stimulating of spot prices.

BLANC FIXE.—Blanc fixe has been moving to paper making consumers with fair regularity, the quoted price of $80 to $85 per ton being the basis for most transations. This price is expected to obtain at least through the first few weeks of 1923.

CAUSTIC SODA.—Caustic continues to hold a very strong position owing to restricted production and heavy demand. 2.50 cents a pound represents the average price quoted on strandard grades of caustic on contract.

CHINA CLAY.—The clay market in this country has been attended with a goodly volume of activity in recent months. Contract shipments of foreign clays, delayed during the coal strike when both English and American bottoms were diverted to the transport of English coal, are getting back to normal, while the spot demand is consistently regular. Imported China clay lists at $16 to $23 per ton, domestic washed at $12 to $15 and, unwashed at $9.50 to $12.

CASEIN.—The casein situation is still "up in the air" in so far as the ability of dealers or consumers to secure spot supplies in any quantity is concerned. With the coming of summer and the "flush" milk season in the Argentine, foreign casein production has increased considerably, but this is offset by the fact that a great deal of Argentinian casein is being turned into other consuming channels, and domestic production has greatly fallen off. Casein for immediate shipment is cheap at any price, if the 25 and 26 cent bids of needy consumers may be accepted as a criterion of market conditions, although the bulk of contract business is being transacted below the 20 cent mark.

PAPERMAKERS' GLUE.—Tub sizing hide glue is still listed by domestic producers at 13 to 20 cents a pound. Demand from the paper trade has improved during the casein shortage.

ROSIN.—E, F and G grades of rosin, in barrels of 280-pounds are in steady call at prices varying from 6.90 to 7.10 cents a pound, New York. The Savannah, Ga. price is approximately 1 cent a pound less.

SALTCAKE.—Production of saltcake is still far below normal. One prominent New York chemical dealer was told last week by an acid manufacturer that muriatic production was practically at a standstill. "If the demand for muriatic continues as weak as it is at present," he said, "we shall soon be manufacturing saltcake and dumping the acid in the river!" The consuming demand for both chrome and acid cake is exceptionally heavy, the former being listed at $25 to $26.50 a ton and the latter at $28 to $29.50.

SODA ASH.—Forty-eight per cent basis soda ash continues to be quoted at 1.20 cents a pound. The schedule prices of alkalies are not expected to vary appreciably with the coming of the new year. Competition and heavy potential production tend to hold prices down, while the export demand is almost insignificant.

STARCH.—Bag quantities of powered starch are still quoted at 2.72 cents a pound, with barrel lots at 3.00 cents. Papermakers' starch is listed at 2.82 and 3.00 cents respectively for these amounts.

SULPHATE OF ALUMINA.—Prospects for the new year in the alum market are encouraging. Dealers report that embargo and car shortage difficulties are gradually being surmounted and, catering to the stiff demand, shipments are moving forward at a better rate. Prices are steady at 1.50 to 1.75 cents a pound for commercial and 2.55 to 2.80 for iron free.

# Market Quotations

(*Continued from page 67*)

| | | | |
|---|---|---|---|
| Solid Ledger Stock. | 2.75 | @ | 3.00 |
| Writing Paper..... | 2.50 | @ | 2.75 |
| No. 1 Books, heavy. | 2.25 | @ | 2.50 |
| No. 2 Books, light. | 1.40 | @ | 1.50 |
| No 1 New Manila. | 2.75 | @ | 3.00 |
| No 1 Old Manila.. | 1.50 | @ | 1.75 |
| Container Manila... | 1.25 | @ | 1.30 |
| Old Kraft..... | 2.25 | @ | 2.50 |
| Overissue News.... | 150 | @ | 1.60 |
| Old Newspaper.... | 1.20 | @ | 1.25 |
| No. 1 Mixed Paper. | 1.10 | @ | 1.15 |
| Common Paper.... | .80 | @ | .90 |
| Straw Board, Chip. | .80 | @ | .90 |
| Binders Bd'. Chip.. | .80 | @ | .90 |
| Domestic Rags—New. Price to Mill, f. o. b. Phila. | | | |
| Shirt Cuttings— | | | |
| New White, No. 1. | 11¼ | @ | .11¾ |
| New White, No. 2 | .06 | @ | |
| Silicias, No 1.... | .06½ | @ | .07 |
| New unbleached.. | .10¼ | @ | |
| Washables ..... | .03¾ | @ | |
| Fancy ..... | 04¾ | @ | .05¾ |
| Cottons—according to grades— | | | |
| Blue Overall.... | .05½ | @ | .05¾ |
| New Blue..... | .02¾ | @ | .02¾ |
| New Black Soft. | .06¼ | @ | .06½ |
| New Light Seconds ..... | .02½ | @ | .02¾ |
| Khaki Cuttings.. | .03½ | @ | .04¼ |
| Corduroy ..... | .03¼ | @ | .03¾ |
| New Canvass.... | .07½ | @ | .08 |
| New Black Mixed | .04 | @ | |
| Old White, No. 1— | | | |
| Repacked ..... | .06 | @ | .06½ |
| Miscellaneous ... | .04½ | @ | .04¾ |
| White, No. 2— | | | |
| Repacked ..... | .03 | @ | .03½ |
| Miscellaneous ... | .03 | @ | .03¼ |
| Thirds and Blues— | | | |
| Repackeed ..... | 200 | @ | 2.25 |
| Miscellaneous ... | 1.85 | @ | 1.90 |
| Black Stockings.... | 2.75 | @ | 3.00 |
| Roofing Stock— | | | |
| No. 1..... | 1.30 | @ | 1.35 |
| No 2..... | 1.20 | @ | 1.25 |
| No 3..... | 1.10 | @ | 1.15 |
| No. 4..... | 110 | @ | 1.15 |
| No. 5A..... | 1.05 | @ | 110 |
| B..... | | | nominal |
| C..... | | | nominal |

## BOSTON

[FROM OUR REGULAR CORRESPONDENT]

### Paper

| | | | |
|---|---|---|---|
| Bonds ..... | .08 | @ | .50 |
| Ledgers ..... | .08½ | @ | .55 |
| Writings ..... | .08 | @ | .42 |
| Superfine ..... | .16 | @ | .26 |
| Fine ..... | .15 | @ | .18 |
| Books, S. & S. C.. | .07¼ | @ | .12 |
| Books, M. F..... | .06¼ | @ | .09½ |
| Books, coated ..... | .09 | @ | .15 |
| Label ..... | .08½ | @ | .13 |
| News, sheets ..... | 4.75 | @ | 6.00 |
| News, rolls ..... | 4.50 | @ | 5.75 |
| Manilas— | | | |
| No. 1 Manila... | $6.00 | @ | 7.00 |
| No. 1 Fiber ... | .06½ | @ | .07 |
| No. 1 Jute ..... | 9.00 | @ | 10.50 |
| Kraft Wrapping .. | .07 | @ | |
| Common Bogus ... | 3.50 | @ | 3.85 |

### Boards

(Per Ton Destination)

| | | | |
|---|---|---|---|
| Chip ..... | $50.00 | @ | 55.00 |
| News, Vat Lined... | 52.50 | @ | 55.00 |
| Wood, Vat Lined.. | 60.00 | @ | 65.00 |
| Filled News Board.. | 52.50 | @ | 57.50 |
| Solid News Board.. | 55.00 | @ | 70.00 |
| S. Manila Chip... | 72.50 | @ | 75.00 |
| Pat. Coated ..... | 70.00 | @ | 75.00 |

### Old Papers

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White | 4.25 | @ | 4.50 |
| No. 1 Soft White | 3.00 | @ | 3.50 |
| No. 1 Mixed..... | 1.25 | @ | 1.50 |
| Ledgers & Writings | 1.75 | @ | 2.00 |
| Solid Books..... | 2.25 | @ | 2.50 |
| Blanks ..... | 1.70 | @ | 1.80 |
| No. 2 Light Books. | 1.75 | @ | 1.90 |
| Folded News, overissues ..... | 28.00 | @ | 30.00 |
| Gunny Bagging ... | .85 | @ | .90 |
| Manila Rope..... | 5.75 | @ | 6.00 |
| Common Paper..... | .60 | @ | .70 |
| Old News ..... | .80 | @ | .90 |
| Old Kraft ..... | 2.00 | @ | 2.10 |

## TORONTO

[FROM OUR REGULAR CORRESPONDENT]

### Paper

(Mill Prices to Jobbers f. o. b. Mill)

| | | | |
|---|---|---|---|
| Bond— | | | |
| Sulphite ..... | .11 | @ | .12½ |
| Light tinted..... | .12 | @ | .13½ |
| Dark tinted..... | .13½ | @ | .15 |
| Ledgers (sulphite). | — | @ | .13 |
| Writing ..... | .09½ | @ | .12 |
| News, f. o. b. Mills— | | | |
| Rolls (carloads). | 3.75 | @ | — |
| Sheets (carloads).. | — | @ | 4.50 |
| Sheets (2 tons or over) ..... | — | @ | 4.75 |
| Book— | | | |
| No. 1 M. F. (carloads) ..... | 9.00 | @ | — |
| No. 2 M. F. (carloads) ..... | 8.00 | @ | — |
| No. 3 M. F. (carloads) ..... | 7.50 | @ | — |
| No. 1 S. C. (carloads) ..... | 9.50 | @ | — |
| No. 2 S. C. (carloads) ..... | 8.50 | @ | — |
| No. 1 Coated and litho. ..... | 14.00 | @ | — |
| No. 2 Coated and litho. ..... | 13.00 | @ | — |
| No. 3 Coated and litho. ..... | 12.25 | @ | — |
| Coated and litho., colored ..... | 14.25 | @ | — |
| Wrapping— | | | |
| Grey ..... | 5.00 | @ | — |
| White Wrap.... | 5.75 | @ | — |
| "B" Manila..... | 6.00 | @ | — |
| No. 1 Manila.... | 7.25 | @ | — |
| Fiber ..... | 7.25 | @ | — |
| Kraft, M. F. ..... | 8.00 | @ | — |
| M. G. ..... | 8.15 | @ | — |

### Pulp

(F. o. b. Mill)

| | | | |
|---|---|---|---|
| Ground wood..... | $35.00 | @ | 42.50 |
| Sulphite easy bleaching ..... | 60.00 | @ | 70.00 |
| Sulphite news grade. | 55.00 | @ | 60.00 |
| Sulphite, bleached. | 100.00 | @ | 105.00 |
| Sulphate ..... | 70.00 | @ | — |

### Old Waste Papers

(In carload lots, f. o. b. Toronto)

| | | | |
|---|---|---|---|
| Shavings— | | | |
| White Env. Cut.. | 3.85 | @ | — |
| Soft White Book Shavings ..... | 3.60 | @ | — |
| White Bl'k News. | 2.00 | @ | — |
| Book and Ledger— | | | |
| Flat Magazine and Book Stock(old) | 2.30 | @ | — |
| Light and Crumpled Book Stock | 2.15 | @ | — |
| Ledgers and Writings ..... | 2.50 | @ | — |
| Solid Ledgers.... | 2.75 | @ | |
| Manilas— | | | |
| New Manila Cut. | 2.00 | @ | — |
| Printed Manilas.. | 1.75 | @ | — |
| Kraft ..... | 2.50 | @ | — |
| News and Scrap— | | | |
| Strictly Overissue | 1.50 | @ | |
| Folded News.... | 1.50 | @ | |
| No. 1 Mixed Papers ..... | 1.00 | @ | — |
| Domestic Rags— | | | |
| Price to mills, f. o. b. Toronto | | | Per lb. |
| No. 1 White shirt cuttings ..... | .11 | @ | .11¼ |
| No. 2 White shirt cuttings ..... | .06 | @ | — |
| Fancy shirt cuttings ..... | .06 | @ | — |
| No. 1 Old whites | .04 | @ | — |
| Thirds and blues | .02 | @ | |
| | | | Per cwt. |
| Black stockings... | 2.50 | @ | — |
| Roofing stock: | | | |
| No. 1 ..... | 1.25 | @ | — |
| No. 2 ..... | 1.00 | @ | — |
| Roofing stock: | | | |
| Manila rope..... | 6.10 | @ | |
| No. 2..... | 1.50 | @ | |
| Gunny bagging.... | 1.00 | @ | |

*The Home of Quality*

FACTORY
132ND TO 133RD ST & BROOK AVE

# PAPER BAGS

## Sacks and Specialties

ESTABLISHED 1901

## SCHORSCH & CO.

*Manufacturers*

**500 East 133d Street : New York**

This Registered Trade Mark Octagon

on a Paper Bag Vouches for Its Good Quality

The B Co INC

**Quality:** *It means more than price*

# PULPS

**"Hafslund Bear"** **"Forshaga"**

BLEACHED SULPHITE

**"Klarafors"**

EASY BLEACHING SULPHITE

STRONG UNBLEACHED SULPHITE

**"Hurum"** **"Bamble"**

EXTRA STRONG KRAFT; BLEACHED AND BLEACHABLE SULPHATE

**"Edsvalla"** 50% MOIST **"Dejefors"** DRY

WHITE SPRUCE—GROUND WOOD

*Tonnage available on dock for prompt shipment*

**THE BORREGAARD CO., INC.**

200 FIFTH AVENUE NEW YORK CITY

# Clay

## 300 tons daily

AMERICAN MADE FOR AMERICAN TRADE

Some portion of our clay production is *pulverized*. That part of it which is *pulverized* is, as far as we know, the only *pulverized clay* which is washed and refined before being pulverized.

This insures greater freedom from impurities and an exceedingly uniform product.

Prices on M-E pulverized clay may surprise you even considering this additional treatment.

*Let us submit samples and quote you*

MECCO

THE MINER-EDGAR CO.
110 WILLIAM ST.,
NEW YORK

English China Clays
ECCO CLAYS
Sales Corporation

33 WEST 42ND ST., NEW YORK

# Ecco Clays 500,000 Tons Annually

DELIVERIES FROM PRODUCER INSURE AND ENABLE YOU TO PRODUCE UNIFORM PAPER

# Highest Grades Filler and Coating Clays

# WANT AND FOR SALE ADVERTISEMENTS

## CLASSIFIED RATES

Minimum rate for advertisements of 25 words or less, first insertion, $1.00.

**SITUATION WANTED,** 4 cents a word for first insertion and 2 cents a word for each subsequent insertion of same ad. No ad of less than 25 words accepted.

**HELP AND MISCELLANEOUS WANTS,** and small **For Sale Ads,** 4 cents a word for each and every insertion. No ad of less than 25 words accepted.

When answering advertisements, please address the Box Number given in ad.

Answers can be forwarded care Paper Trade Journal, and will be promptly forwarded without extra charge. All should be sent to the New York office, 10 East 39th street. And all should be addressed as the advertisement directs in every case and not simply to the paper.

All classified ads for the current issue must be in hand not later than Monday preceding date of publication.

## HELP WANTED

**SALESMAN WANTED**—Exceptional opportunity for a high class salesman with paper house starting Wedding Announcement Department. Must have managerial ability and experience in selling wedding announcements to printers, stationers, advertisers and department stores in New York City. Address communications to Box 5706, stating experience, salary expected and references. D-21

**WANTED**—Three back tenders for Harper Fourdrinier and cylinder running about 350 ft. Apply Marley Paper Manufacturing Co., Childs, Cecil Co., Maryland. D-28

**SUPERINTENDENT**—Manager wanted for by-sulphite liquor by-product plant. Must be familiar with various processes and have had successful experience in plant operation. State salary desired, experience, etc. Address, Box 5507, care Paper Trade Journal. J-11

**PAPER SALESMAN**—Excellent opportunity with old established New York paper house for competent salesmen on salary and commission basis. Must be thoroughly familiar with all grades of wrappings. State age, experience, references, etc. Confidential. Address, Box 5708, care Paper Trade Journal. D-21

**KRAFT WRAPPER** paper mill superintendent wanted, as well as machine tender, beaterman and good soda recovery man; plant will make 20 tons of kraft wrapper per day at start; now being installed; everything new; locality excellent; living cost very low; give complete statement of age, experience, size of family, salary, etc. Superintendent should be prepared to come at once. Address, Calcasieu Mfg. Co., Elizabeth, Louisiana. D-28

**WANTED**—Experienced chief engineer by Writing Mill in West, developing 1,600 boiler horse power. Address, Box 5709, care Paper Trade Journal. D-28

**SALES ORGANIZATION** covering jobbing and chain store trade in New England have opening for additional lines of coarse paper on a commission basis. Address, Box 5710, care Paper Trade Journal. D-28

**WANTED**—Experienced cylinder machine tenders, back tenders, and beater engineers for roofing mill located in the East. 3 tours. Wages: Machine tenders 85c per hour; back tender 60c; beater engineer 75c. No labor trouble. Send experience and reference in first letter. Address, Box 5724, care Paper Trade Journal. tf

**EXPORT**—Paper salesman to travel in Latin America for old established leading Export Paper House. Excellent opportunity for aggressive and experienced man. State full particulars. Address, Box 5725, care Paper Trade Journal. J-4

## NOTICE

When replying to advertisements which have a BOX NUMBER always make certain you have the correct **Box Number** on the address. This will insure your letter being sent to the right advertiser.

## HELP WANTED

**PAPER BAG TENDER** wanted to operate on Glassine and specialty bags, also taking charge of bag department. Give full particulars as to experience and salary. Address, Box 5711, care Paper Trade Journal. D-21

**SUPERINTENDENT WANTED** for Spiral wound paper tube and can factory. Must be thoroughly competent. An unusual opportunity. State experience and salary required. Address, Box 5712, care Paper Trade Journal. J-11

**WANTED**—Three super calender runners in mill making high grade book paper. Two tours. Address, Box 5713, care Paper Trade Journal. J-11

**WANTED**—Finisher for Book Mill. Must be experienced in bundling paper. Rate on piece work basis, averaging $6.00 per day. Address, Box 5714, care Paper Trade Journal. J-11

**PAPER AND TWINE SALESMAN**—Have opening for salesman for New York City. Commission basis. Address, Box 5730, care Paper Trade Journal. D-21

**SALESMAN WANTED** with Established Trade in paper, paper boards or twine in or adjacent to New York City. Address, Great Notch Paper Co., Inc., 101-103 Varick Street, New York. J-25

**SALESMAN WANTED**—Salesman with experience in selling Waterproof Wrapping Paper to handle that line for a going concern. Address, Box 5642, care Paper Trade Journal. D-21

**EXPERIENCED** toilet paper converting operator to assist foreman. Steady position to intelligent young man who is looking for a future. Address, Box 5683, care Paper Trade Journal. D-21

**SALESMEN WANTED**—High grade, New York following. Exceptional opportunity to become associated with young growing paper house. Communications confidential. Address, Box 5682, care Paper Trade Journal. D-28

**WANTED**—Super Calendar Operators and Rewinder men. Good wages. Eight hours. Address, Box 5685, care Paper Trade Journal. D-21

**WANTED**—Young man with selling experience familiar with paper mills to sell Fourdrinier Wires and some other Materials. Address, Box 5647, care Paper Trade Journal. D-21

**THOROUGHLY COMPETENT** and practical glassine bag and envelope maker, one who understands the manufacturing of these goods in detail. Excellent proposition to bright, energetic young man. Address, Export Paper Products Co., Post Office Box 665, New Orleans, Louisiana. J-25

**WANTED** — Experienced Draftsman for paper mill in Middle West; must be familiar with boiler house, and building designing, also construction. Give all information in first letter. Address, Box 5686, care Paper Trade Journal. J-4

## HELP WANTED

**BOARD MILL SUPERINTENDENT**—Wanted, high grade man to assume charge of reorganized board mill, net assets over $300,000.00; located in Mid-west territory. Must invest $20,000 in cash, for which he will receive 20 per cent interest in the company, and salary of $6,000 per annum. Address, Box 5687, care Paper Trade Journal. D-21

## SITUATIONS WANTED

**CHEMIST,** thoroughly trained and experienced in the manufacture of fibre board and paper, wants connection for chemical control and research work. Address, Box 5716, care Paper Trade Journal. J-4

**PAPER SALESMAN**—Young man. Active hard worker. Good address. Several years' selling experience, including some time with Coarse Paper mill. Desires connection with high grade New York Paper Dealer or Mill Office. Address, Box 5717, care Paper Trade Journal J-18

**SUPERINTENDENT,** experienced on all grades of board and test liners, can put and keep plant in first class condition and get production, good on colors, not afraid to hustle. Best of references. Address, Box 5718, care Paper Trade Journal. J-4

**SULPHITE MAN,** university graduated chemist, with 2 years' experience from sulphite mill in Sweden and 1½ years in U. S. A. and Canada, desires position. Familiar with testing and control of all departments of a Sulphite Mill. Now employed. Address, Box 5719, care Paper Trade Journal. D-28

**BOXBOARD**—A man thoroughly experienced in the manufacture of high grade boxboards, including strawboard and light straw, would make change. 10 years present position, especial ability in construction and maintenance as well as operation. Best of results in handling help. Can furnish best of references. Address, Box 5720, care Paper Trade Journal. J-18

**CHEMIST,** M. I. T. graduate with several years' unusual experience in sulphite pulp, coated glassine, jute and rope paper manufacture, who can show a record of real economies in reduction of costs, will be available in January. Excellent references from previous connections who are of highest character in the trade. Address, Box 5729, care Paper Trade Journal. D-21

**A YOUNG MARRIED MAN** is open for connection with paper mill or paper jobber. Thorough paper experience in actual manufacturing as well as the office end, will make him of value to concern needing a man who can efficiently handle correspondence, purchasing, financing, and general office management. Address, Box 5613, care Paper Trade Journal. D-28

**SALESMAN**—Chicago and Central States Territory. Seven years' successful experience handling jobbing, publishing, printing and consuming trade. Excellent knowledge of book papers and kraft. Coarse and fine papers and boards. Address, Box 5731, care Paper Trade Journal. D-28

**WANTED POSITION** as Assistant Superintendent or Tour Boss. Eighteen years' experience. Experienced on all grades of fine papers. Good on colors. Will go any place. Best of references furnished. Address, Box 5668, care Paper Trade Journal. D-21

**SALESMAN** with wide missionary experience selling high grade coated and specialty papers, desires position with mill selling to jobbers and converters. Address, Box 5732, care Paper Trade Journal. D-21

**WANTED**—Position as superintendent or assistant superintendent in paper mill making No. 1 book. Middle aged man, married, with good references from last employer. Good reasons for making change. Address, Box 5721, care Paper Trade Journal. D-28

**WANTED**—A position as salesman by young man thoroughly familiar with manufacture of specialties. 15 years' experience. Best of references as to character and ability. Address, Box 5722, care Paper Trade Journal. D-21

XUM

## SITUATIONS WANTED

**SULPHITE SUPERINTENDENT** — Up-to-date superintendent, fourteen years' experience in manufacture of news and book sulphite pulp, open for employment after January first. Experienced in Tower and milk of lime systems. Repairs, operation and constructions. References. Address, Box 5723, care Paper Trade Journal. J-4

**SUPERINTENDENT** desires position, 18 years' experience in the manufacture of tissues, all grades; equally efficient in either wood or stock. High grade man in waxing tissues, all grades twines and carpet fibres for twisting, Kraft papers of quality and strength. Thoroughly understands the converting of crepe and waxed papers. A-No. 1 on color. References. Address, Box 5726, care Paper Trade Journal. J-18

**PAPER MAKER** of ability, understands paper from A to Z. Eighteen years' jobbing experience, desires to connect with good reliable house as manager or buyer, understands the twine and cordage business thoroughly. References. Address, Box 5727, care Paper Trade Journal. J-11

**ADVERTISER** 38 years, active and loyal, 20 years' experience with large coarse paper house in Metropolitan district, stock, shipping, office, selling and buying, seeks connection where his knowledge and some hard work could be utilized. Address, Box 5728, care Paper Trade Journal. D-28

**MAN** with Executive Ability desires position as mill manager. Years of experience in paper manufacturing. Expert in sales, purchasing, cost, accounting and office supervision. Address, Box 5579, care Paper Trade Journal. D-21

**POSITION WANTED** by a party thoroughly experienced in the exporting of paper to Cuba, Mexico, South America, Japan, China and Australia and having an intimate knowledge extending over 20 years in the importing of all kinds of paper from England, France, Germany, Scandinavia and Finland together with a thorough knowledge of English and German and a working knowledge of French and Spanish. Location in this country no object. Address, Box 5619, care Paper Trade Journal. tf

## HELP WANTED

**General Factory Superintendent**

MIDDLE WEST waxed paper plant requires a thoroughly experienced executive for manufacturing.

The man who qualifies must have experience of the most practical kind. Must be an expert on color printing, plate work, layouts, waxing, and be able to operate the mechanical equipment by employing the most up-to-date time-saving methods. Further, he must prove his ability to handle men.

This is a big position with exacting requirements. The right man will command a salary commensurate. Correspondence is invited and will be held strictly confidential. Detailed information covering experience, with references required before interview. Address Box 5715, care Paper Trade Journal J-4

**WANTED:**

Production manager to handle all departments of eastern waxing plant. Permanent position with progressive organization. Advise experience and qualifications. Address, Box 5688, care Paper Trade Journal. D-21

## SITUATIONS WANTED

**PAPER SALESMAN:** New York City, who can produce large amount of business, would like connection with Paper House, or organization, having good mill facilities. Drawing account on commission basis. Address, Box 5596, care Paper Trade Journal. tf.

**SUPERINTENDENT** of ability desires to make a change. Experienced on all grades of fine Papers, Bond, Ledger, Book, Kraft, Waxing, Manilas, and other Grades. Address, Box 5547, care Paper Trade Journal. D-21

**SUPERINTENDENT** open for position. 20 years' experience in the manufacture of all the better grades of combination and container board. Can get quality and production. Thoroughly familiar with repairs, maintenance and operation of every department of mill. Can furnish the very best of references. Address, Box 5611, care Paper Trade Journal. J-11

**WELL EDUCATED YOUNG MAN** with 12 years' practical experience, wishes position as superintendent, assistant superintendent, or assistant manager with any reliable concern. Will go anywhere. Best of references furnished. Address, Box 5651, care Paper Trade Journal. J-25

**PLANT MANAGER**—Felt, News, and Kraft experience desires to make change; capable executive, systematizer and producer of results. Address, Box 5667, care Paper Trade Journal. D-21

**WANTED**—Position as Assistant Manager or similar executive position or Salesman. Thorough Mill, Selling and Office Experience. Now connected with a leading mill making Sulphite, Bond, Ledger and writing, but desires to make a change. Highest references. Address, Box 5669, care Paper Trade Journal. D-28

**SUPERINTENDENT**—With wide experience in fine and coarse mills, fourdrinier and cylinder machines. Go anywhere. Pacific Coast preferred. Best references. Address, Box 5670, care Paper Trade Journal. D-21

**SALESMANAGER AND EXECUTIVE** wants position with well established, progressive Paper House. Will consider any territory. Thorough knowledge fine and coarse papers, also cordage. College education. Broad experience obtained in many parts of country. Address, Box 5671, care Paper Trade Journal. D-21

**EFFICIENT, CAPABLE,** up-to-date Superintendent wishes connection. All grades Stocks, Boards, and Cylinder Papers; Box, Jute, Container, Wrappings, Tissue and Specialties. Good executive, honest. Can get production. Address, Box 5672, care Paper Trade Journal. D-21

**POSITION WANTED**—Man of ability, with twenty years' experience in mills manufacturing high grade bleached and unbleached sulphite pulp, desires position as sulphite superintendent, or assistant manager. Experienced in constructing, operating and maintaining; capable of handling men; able to take full responsibility to secure results. Temperate and reliable. At present connected. Address, Box 5678, care Paper Trade Journal. D-21

**TWO PAPER MEN** with mill and jobbing experience are open for a mill agency proposition for Greater New York and vicinity. Lines desired are cardboard, plain and coated, book and coated papers, fancy papers and covers. Mr. Manufacturer if you are not getting results from your present connections you would do well to write to Box 5690, care Paper Trade Journal D-28

**UNIVERSITY GRADUATE,** 1916, A. B. and Bachelor of Commerce. At present engaged by world's largest manufacturers of fibre and corrugated boards. Three years' experience in sale and production of heavy paper and boards. Desires any position (preferably in selling organization) in which one hundred per cent determination and honest effort to succeed will be rewarded by opportunities for advancement. Address, Box 5699, care Paper Trade Journal. D-21

**EXECUTIVE** of large plant wants management and sales of small mill (fourdrinier machine) to make specialty of great promise. Address, Box 5700, care Paper Trade Journal. D-21

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**SUPERINTENDENT** with wide experience making all grades tissue and light weights and colored specialties on Fourdrinier, Harper Yankee and cylinder machines, would like connection with good mill. Address, Box 5692, care Paper Trade Journal. D-28

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CHILLED CALENDERS—One 86" six roll. One 82" five roll. One 66" five roll. One 58" five roll. One 54" five roll.
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BEATERS—Three N. & W. 72"x42". One Holyoke 54"x60" equipped with four Tyler washers. One Dilts 62"x50" iron tub. One Jones 62"x52". One Dillon 60"x48". Two Emerson 54"x60". Three Downingtown 54"x42" iron tub. One Jones 42"x38". Seven Horne 36"x36". One N. & W. 36"x26". Two No. 2 Claflins, Two No. 1 Claflins.
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**MACHINE TENDER** wants position. Experience on all grades tissue and crepe. Can handle cylinder and Fourdrinier with top felt or without. Am married, have family. Address, Box 5695, care Paper Trade Journal. D-28

**MASTER MECHANIC** or chief millwright wishes to make change. 21 years' experience in pulp and paper mills. Have served as paper maker, millwright, machinist and master mechanic. Can put mill in shape and keep it there at a saving to firm. Not afraid of work, able to handle men. References. Address, Box 5697, care Paper Trade Journal. D-28

**POSITION WANTED;** all around man. Laying out order schedules for mill runs. Looking after manufacturing details. Handling all correspondence pertaining to sales, etc. Now holding position this capacity with a leading mill, but desires to make a change. Have very thorough mill and office experience. Very best references. Address Box 5701, care Paper Trade Journal. J-4

**ESTABLISHED FIRM** of mill agents with large trade in New England seeks connections with mills making coarse papers, boxboards, or paper specialties. Address, Box 5684, care Paper Trade Journal. D-28

**WANTED**—Position as assistant superintendent or foreman. Twenty-two years' experience on fourdrinier machine making sulphite and rag papers. Principally writings, bonds and ledgers. Address, Box 5698, care Paper Trade Journal. J-11

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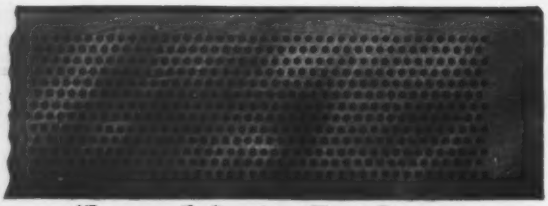

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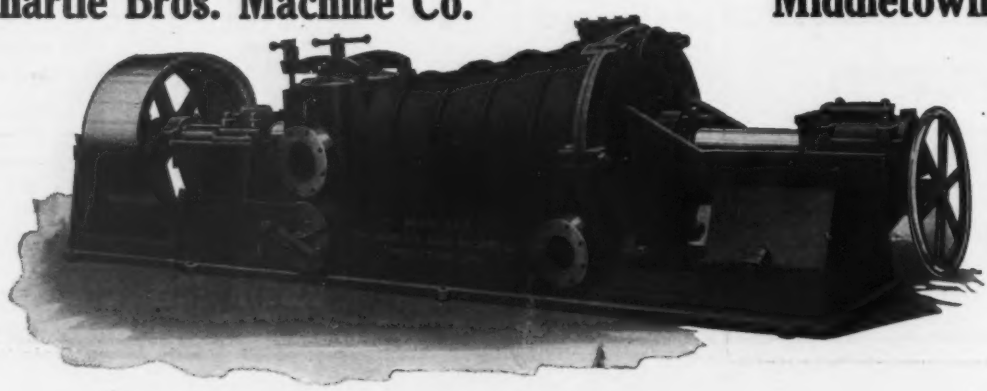

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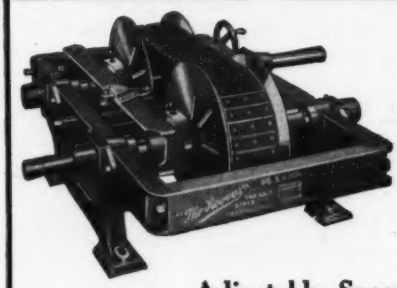

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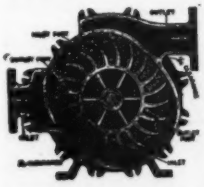

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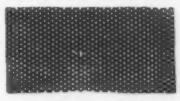

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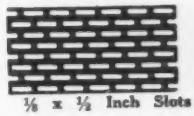

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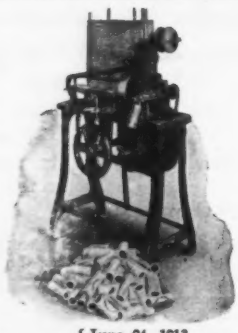

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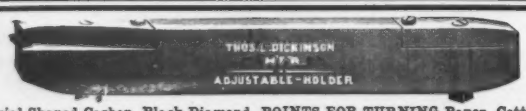


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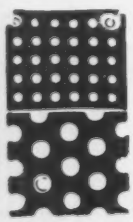

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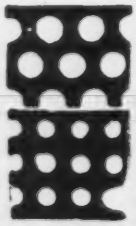

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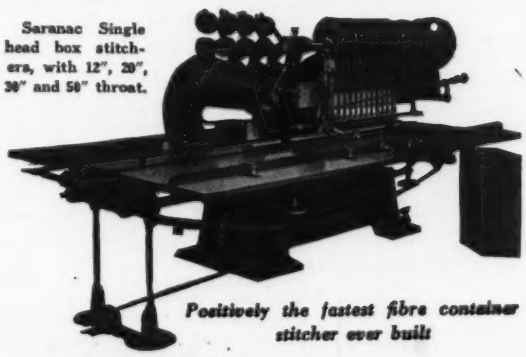

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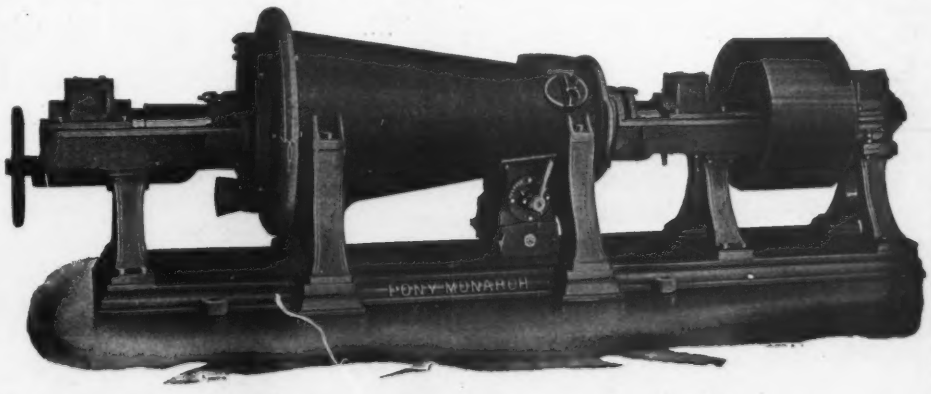

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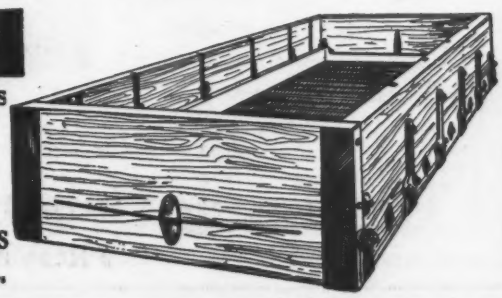

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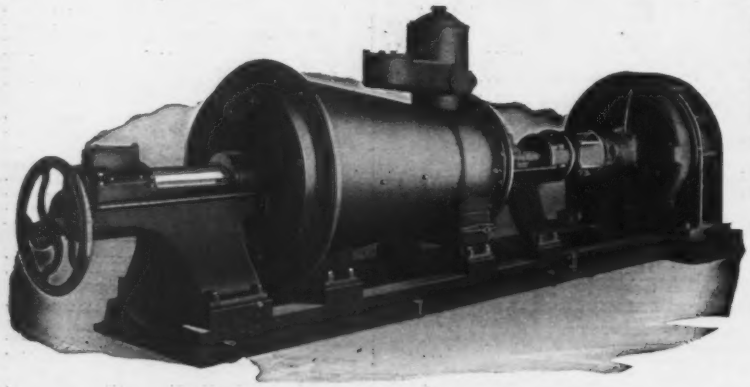

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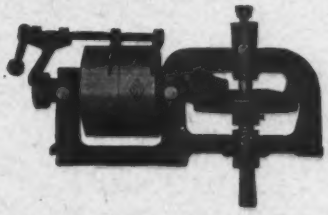

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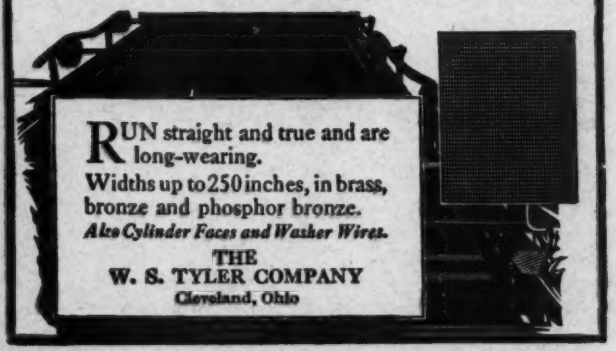

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